

7. "If I find it to be necessary, I will ask you to obtain sanction of a grant of money for providing women not accustomed to work out of doors with works to be done in their houses, *e. g.* cleaning cotton."

8. In submitting the above-mentioned proposals of the Sub-Divisional Officer of Nowada, the Collector of Gya has not stated what steps have been taken by him on them. He has now been asked to supply the omission. As soon as the information is received I shall submit a further report.

9. In the Behar sub-division in the district of Patna, owing to the late rain, the winter rice crop would be a 5 annas and *rubi* 14 annas.

10. The Sub-Divisional Officer reports that there is not at present exactly the same apprehension in regard to fodder as existed before the October rain, but still he cannot positively say that he is quite free from anxiety.

No. 10MA, dated Calcutta, the 30th November 1884.

From—A. SMITH, Esq., Commissioner of the Presidency Division,

To—The Secretary to the Government of Bengal, Revenue Department.

IN continuation of this office letter No. SMA, dated the 8th instant, I have the honour to submit the following fortnightly report for the first half of November on the prospects of the crops in those parts of Nuddea and Moorsshedabad which have been affected:—

#### NUDDEA.

2. *Kaligunge thana of the Sudder sub-division.*—The prospects of the *rubbee* crops are reported to be good. There has been some pressure amongst the poor class of labourers and cultivators. Rupees 3,000 have been allotted by the District Road Cess Committee to open up road works with a view to afford relief to those requiring it.

3. *Thana Chagdah.*—The expected outturn of *amun*, including that on the low lands, may be estimated at 10 annas of an average year's produce.

4. *Inner circle of the Meherpore sub-division.*—The Sub-Divisional Officer of Meherpore reports as follows:—

"The actual state of things in the inner circle differs little from that reported in my Nos. 266 and 267, dated 22nd of October, but the prospects therein are greatly improved.

"At present a little relief is afforded by the unusual influx of the *kalai* into the market, which, as I reported before the Pujahs, was being sown in exceptionally large quantities with a view to anticipate the coming scarcity, signs of which were even then apparent.

"This influx of *kalai* has undoubtedly given great relief to the people, for the difficulty we had to deal with was the scarcity of grain in the market, and not so much the scarcity of money to purchase with.

"Another thing I notice is the usual exodus of people for the *Kalantur* and other great *dhan* fields along the Jellinghee has this year taken place earlier and to a greater extent than in previous years.

"It is said that owing to the late rains the *dhan* crop is earlier this year than last.

"I am therefore disposed to modify my last reports as to the great pressure people would feel, and I am of opinion that it will be greatly alleviated.

"There will, however, be a great deal of distress, as I said before, amongst those classes who cannot command labour owing to age, sickness, and the exigencies of their position, and I cannot but think that it would be as well to open up road works as relief measures, as I reported in my No. 266 of the 22nd October. An average wage of six pies a day would help people of this class considerably, and supplement the earnings of the stronger and more able-bodied members of the family. The prospects of the cold-weather crops are such as have seldom been seen in this sub-division, and all want and distress will in a few months' time be out of the question; but a little relief, such as I have recommended, might be given till the end of December with advantage."

5. Rupees 1,700 have been allotted by the District Road Cess Committee to open up road works in the distressed parts of the sub-division, out of which authorization for Rs. 1,000 has already been sent to the Sub-Divisional Officer by the District Magistrate.

The Officiating Collector of Moorsshedabad, Mr. Farrer, reports as follows:—

"I am unable to go over the whole of the ground on this occasion, as my information is in many respects incomplete, and I have been prevented from proceeding into the interior myself on account of your having visited this district for the purpose of the annual inspection. I intend, however, to proceed into camp in a few days, and hope to remain out until the end of the month, when I shall be able to submit a much more complete account of the actual state of affairs. On this occasion I am compelled to confine myself to general observations, as I wish to verify the evidence that I have received before embodying it in a report of this nature.

"I purpose, therefore, on this occasion dealing with the whole of the district at once in my observations, except where local peculiarities of particular tracts render special mention necessary. Taking, then, the whole district altogether, I believe that the general

average yield of the *amun* crop will be about six annas (taking 16 annas as a full crop). Now, I believe that with a six-anna crop there would ordinarily be no very serious pinching, provided that a crop of that yield was reaped in every mourah in the district. This, however, is not the case, as of course the higher lands west of the Bhagirathi have suffered more from the scantiness of the rainfall than the low-lying lands in the three thanas Burwa, Hariharpara and Nawada east of that river, and to the south of the district. There is a tract of country in those three thanas called the *Kalantur*, where a bumper crop will be reaped, and this of course brings up the average for the district. The distribution of the rainfall this last season was also very peculiar, as on some occasions when copious rain fell in one quarter there was little or none in other parts of the district. Thus in thana Sagurdighi, west of the Bhagirathi, the rainfall was sufficiently abundant to permit of about 14 annas of the cultivable area being planted out, and a twelve-anna crop is there expected, whereas in thana Kalyangunge, immediately south of it, not more than 8 annas of the land have been cultivated, and not even a six-anna crop can be expected.

“The prospects of the *amun* are worst in the following thanas and outposts:—

*Jungipore Sub-division.*

- (1.) Suti.
- (2.) Mirzapore.

*Lalbagh Sub-division.*

- (1.) Kalyangunge (4 annas).
- (2.) Bhagwangola.

*Sudder Sub-division.*

- |                     |                 |
|---------------------|-----------------|
| (1.) Jellinghee.    | } 5 to 6 annas. |
| (2.) Dowlutbazar.   |                 |
| (3.) Goas.          |                 |
| (4.) Part of Burwa. |                 |

*Kandi Sub-division.*

- (1.) Thana Khargram.
- (2.) Outpost Gokurn.
- (3.) Outpost Saktipore.

“Regarding the district as a whole, I think that the pinching is being and will be most acutely felt in the tract called the *Rarh*, the part of the district lying to the west of the Bhagirathi. This tract comprises thanas Suti and Mirzapore in the Jungipore sub-division, thana Kalyangunge in the Lalbagh sub-division, and the whole of the Kandi sub-division. I append a statement showing what provision has been made by the District Road Cess Committee for employing those who must have labour in order to live. The work has not been given out to contractors as in other years. The overseers pay the coolies direct. The ordinary rates are being given for earthwork and surface dressing: for the former Rs. 1-9 per 1,000 cubic feet, and for the latter 4 annas per 100 running feet. We have been carefully watching the numbers that assembled on these works: and so far there has been no remarkable rush. In fact, fewer have come in search of work than we expected. On all the roads throughout the district there have never been so many as 1,000 men working in the same day, but at this rate our funds would be exhausted by February next, if not sooner, and the question as to how the indigent must be employed will then arise.

“The present estimate then of the yield of the *amun* crop is that it will be six annas of a bumper crop; but, as I have already explained, there are many small tracts here and there where, owing to the peculiar distribution of the rainfall on the high level on which the land lies, not more than one or two annas will be reaped. The general average is brought up to six annas by the excellent harvest which is expected on the low lands known as the *Kalantur*.

“The *rubbee* crops have been sown under most favourable circumstances throughout the whole district, and are doing well, except in parts of Jungipore and Lalbagh sub-divisions, where they are said to have been damaged by caterpillars (*sua*), but unfortunately the *amun* crop is worst in the *Rarh* country (west of the Bhagirathi), where the soil is most unsuitable for the production of *rubbee* crops, and the ryots have, therefore, but little hope of being able to put down crops of this kind to recoup themselves for the failure of their rice. They are, however, making experiments in the Kalyangunge thana with *rubbee* crops of different kinds, and the result must be awaited. It is unfortunate that these experiments should have to be made under circumstances so unfavourable: and this is evidence of the necessity of a Government experimental farm in each district, where the suitability of different kinds of soil for the several crops could be tested. In an emergency of this kind the ryots would then know what to sow.

“Undoubtedly the rain that fell during the last week of October effected a most marked improvement in the prospects of the *amun* rice, and elsewhere left the soil in a very



at condition for receiving the *rubbee* crops. The result was that most of the mahajans again consented to issue loans of money and rice, and this brought much relief to all that large class which subsist by cultivation.

"As regards the condition of the labouring class proper there is no immediate cause for anxiety. They are finding employment on our district roads, and there will very shortly be a demand for labour in the silk filatures and for reaping the *amun* rice. Next month we shall be in a position to say whether other relief works will or will not be necessary. The evidence at present before me is insufficient to enable me to form any final judgment on so important a question. I have heard a great deal of conflicting evidence, but must see the actual state of affairs with my own eyes before I can deliver an opinion: for the immediate present, sufficient provision is being made.

"Mr. Veasey's estimate of the stocks of old rice still remains good. Rice is still coming in from Beerbhoom, where I believe the stock of old rice is not inconsiderable. The market is slightly easier owing to the good reports received from other rice-producing districts. In Berhampore common rice is selling at 14 seers the rupee, and at Raghunathgunge in Jungipore at 14½ seers. In Kandi the rate is 13½ seers. The trade in general is dull, owing to the general poverty which of course prevails, this being the third bad season in succession.

"With reference, however, to my remarks, in which I estimate the outturn of the *amun* crop at 6 annas for the whole district, I beg to observe that it is not quite clear from the reports I have received that the two issues that arise have not been confused together. The only rational way of estimating the outturn of the crop in a year like the present, in which the work of transplanting has been rendered partially impossible by want of rain, is to determine (1) what proportion (in annas) of the area ordinarily under rice cultivation, taking that as 16 annas, has been planted out; and (2) what kind of a crop (in annas) may be expected on the land which has been transplanted. Thus if only 8 annas of the rice-growing area have been transplanted out, and only an 8-anna yield is expected over that area, there will only be a 4-anna crop reaped. I am directing Sub-Divisional Officers to separate these two issues in their next reports, in order that all confusion may be avoided, and I shall then be able to determine what proportion the present crop bears to a bumper crop in an ordinary season. Last year the question was a simpler one, as the first part of the season was favourable, and the whole of the area was planted out. A portion of the crop perished owing to the failure of the rains in September. On this and other doubtful points I shall endeavour to give a final expression of opinion in my report, which will be submitted at the end of the month."

7. It will be seen from the above extracts from the district reports that there has been considerable improvement in Nuddea. This report corresponds entirely with the opinion I have formed from my own observations during my tour. Mr. Farrer, in Moorsshedabad, reserves his final opinion till after a tour he contemplates making during this fortnight. I have, however, seen a considerable part of that district, and though I will await that report, I may now say that the result of my own observations leads me to think that even then there will be no severe distress. I have traversed the Moorsshedabad district from Nulhatti to Berhampore, from Berhampore to Kandi, and along the banks of the Bhagirathi from Berhampore to Kishnaghur. The crops which I saw were on the whole better than I had expected to see. The cold-weather crops generally were excellent on the banks of the Bhagirathi: in Moorsshedabad, some of them had been attacked by caterpillars. The extent of the damage that would result was uncertain, and next report will tell more of this. I trust, however, that the injury may prove less than was feared. I saw no signs of emaciation or anything indicating any suffering from want of food. An attempt was made to have a gathering of claimants for charity, when I was at Kandi, by way of a demonstration. It was, however, a complete failure. I have seen in ordinary and prosperous times a larger gathering of suitable objects of charity at the distribution on a Sunday of a rupee's worth of rice. Perhaps the worst part of the country I saw was in the Gokurn thana in the Kandi subdivision. Even there, however, the Deputy Magistrate, after making allowance for land left out of cultivation, estimated the outturn of the rice crop at one-fourth of an average crop, and the people were busy with grain and other cold-weather crops.

8. Mr. Farrer met me at my halting stages on my way from Berhampore to Kishnaghur in his district, but he examined the country on the bank of the river opposite to that in which I travelled, so that he would report to me of the country I did not see. His observations corresponded with my own. They were made after the report of which the substances extracted above was written.

9. With regard to relief, I do not think that more is at present needed in either district than is being done. The opening of the silk filatures in Moorsshedabad will give a large amount of labour, and will probably tend to draw away even those now employed on the roads; and it will be seen from the Magistrate's report that so far there has been no large or unusual rush. In Nuddea, where I am at present, and whence, consequently, I have the most recent information, the attendance has been falling off, the ordinary sources of labour, and notably the cold-weather crops, drawing them away.

## DISTRICT ROADS NOW UNDER REPAIR.

*Road on the left bank of Bhagirathi.*

NAME OF ROAD.	Amount allotted.			Amount expended during the first two weeks of November 1884.		
	Rs.	A.	P.	Rs.	A.	P.
Bhagwangola road (from Berhampore to Bhagwangola and a branch to Jeagunge ghât) ...	9,827	0	0	143	14	3
Jelinghi road (from Choonakhali to Jelinghi) ...	1,651	0	0	.....		
Pooranadewrea to Murcha ghât ...	1,466	0	0	69	7	9
Krishnaghur road (from Berhampore to the boundary of the district beyond Loknathpore) ...	1,253	0	0	4	0	0
Beldanga to Mojumpore road ...	142	0	0	.....		
Jungipore to Khamrah Serai ...	259	0	0	17	0	0
Old Calcutta road (from Purtola to Bhapta) ...	221	0	0	11	8	0
Patkabari road (Girabazar at Berhampore to Patkabari) ...	1,638	0	0	82	15	3
Punchanund to Gobra Nullah road ...	210	0	0	12	11	6
Beldanga village road ...	80	0	0	.....		
Arral village road ...	40	0	0	40	1	0

*Road on the right bank of Bhagirathi.*

Kandu road (from Radhaghat to Kalli) ...	1,499	0	0	140	7	9
Jungipore to Mitherpore road ...	842	0	0	101	2	9
Road on the right bank of Bhagirathi from Ramnagar to Dholian ...	3,228	0	0	107	6	6
Badshahee road ...	1,771	0	0	131	14	3
Patchgaon road (from Dahapara to the boundary of the district beyond Patchgaon) ...	1,211	0	0	75	11	0
Khurgaon to Pardia road ...	516	0	0	120	5	0
Kandu to Shaktupore road ...	866	0	0	23	7	6
Burwan to Bilgram road ...	605	0	0	.....		
Kullu to Bilgram road ...	957	0	0	19	3	3
Kandi to Panka road ...	781	0	0	4	0	0
Burwan to Patchoopa road ...	220	0	0	.....		
Jungipore to Bokra ...	777	0	0	.....		
Gokurn village road ...	40	0	0	3	14	6
Mohalundee to Geatara village road ...	79	0	0	10	15	9
Chandpara village road ...	40	0	0	.....		
Rungmati to Gokurn village road ...	200	0	0	.....		
Nowgaon to Kalyangunge ...	100	0	0	6	2	6
Total ...	30,510	0	0	1,126	4	6

## ERRATUM

For Table I published in the *Calcutta Gazette* of the 26th November 1884, read the following Table I:—

TABLE I.

	POOREE.				
	Manufacture of—				
	1879-80.	1880-81.	1881-82.	1882-83.	1883-84.
	Mds. s. c.	Mds. s. c.	Mds. s. c.	Mds. s. c.	Mds. s. c.
Balance at close of the last quarter ...	2,046 20 0	2,870 5 0	36,219 31 0	167,621 20 0	250,586 20 0
Manufacture or added during the quarter ...	.....	.....	.....	.....	43,373 30 0
Total ...	2,046 20 0	2,870 5 0	36,219 31 0	167,621 20 0	293,960 10 0
Sales during the quarter ...	.....	1,152 0 0	8,425 0 0	48,151 0 0	8,619 0 0
Wastage ...	2,046 20 0	.....	.....	390 5 0	.....
Total ...	2,046 20 0	1,152 0 0	8,425 0 0	48,541 5 0	8,619 0 0
Balance at close of the quarter ...	.....	1,718 5 0	27,794 31 0	119,080 15 0	285,341 10 0

A. P. MacDONNELL,  
Secretary to the Government of Bengal.



## Rainfall, Weather, and State and Prospects of the Crops.

Statement showing Rainfall, Weather, and State and Prospects of the Crops in the different Districts of Bengal, as reported to Government during the week ending the 13th December 1884.

No.	District, and date of return.	Rainfall at Sudder Station in inches.	Character of the weather, state and prospects of the crops, and state of health at date.
BENGAL.			
Western Districts.			
BURDWAN DIV.	1 Burdwan, Dec. 13 '84	Nil	Weather—seasonable. Outturn of <i>amun</i> paddy is generally not more than 6 annas. <i>Rubbee</i> crops promise well. Price of common rice varies from 15½ to 17 seers per rupee. Public health on the whole fair.
	2 Bankoora, „ 13 „	Nil	Weather—cold and occasionally cloudy. Cutting of <i>amun</i> paddy continues. Prospects of winter crops generally promising. Public health good; fever abating.
	3 Beerbhoom, „ 13 „	Nil	Weather—cold and fine. <i>Amun</i> paddy is being harvested; general outturn below the average. Sugarcane and other <i>rubbee</i> crops doing well. Food-grains cheaper. Cases of cholera are reported, general health otherwise good.
	4 Midnapore, „ 13 „	Nil	Weather—seasonable. Prospects of all crops good. Sporadic cases of cholera in many parts of the district.
	5 Hooghly, „ 13 „	Nil	Weather—seasonable. Prospects of crops favourable. Fever and cholera still prevalent, but they are abating.
	Howrah, „ 15 „	Nil	Weather—seasonable. <i>Amun</i> paddy is being reaped with good outturn. Winter crops promise well.
Central Districts.			
PRESIDENCY DIV.	6 24-Perghs. Dec. 15 '84	Nil	Weather—seasonable. Prospects of crop are decidedly over the average. Public health generally good, though cases of cholera are reported from Diamond Harbour.
	7 Nuddea, „ 13 „	Nil	Weather—cool, but slightly cloudy occasionally. Winter crops doing well.
	8 Khoolna, „ 13 „	Nil	Weather—mornings foggy, days clear. Harvesting of paddy going on well. Public health fair.
	9 Jessore, „ 13 „	Nil	Weather—cold. Harvesting of <i>amun</i> paddy still continues, prospects favourable. Cholera prevalent in some places in the Narail sub-division and fever in the Bongong sub-division.
RAJSHAHY DIV.	10 Moorshedabad, „ 13 „	Nil	Weather—bright and cool; cloudy at times. <i>Amun</i> paddy still being harvested. <i>Rubbee</i> crops good everywhere, though some damage is being done by insects. Rice is selling at from 14 to 17 seers per rupee. Public health good; cholera gradually disappearing.
	11 Dinagepore, Dec. 12 '84	Nil	Weather—seasonable. <i>Amun</i> and sugarcane are still being cut; outturn expected to be fair. Prospects of <i>rubbee</i> crops good. Price of rice varies from 12 to 18 seers per rupee.
	12 Rajshahye, „ 13 „	Nil	Weather—cool. Harvesting of <i>amun</i> paddy still in progress. <i>Rubbee</i> crops promising well. Public health not good.
	13 Rangpore „ 13 „	Nil	Weather—seasonable. Prospects of winter crops good. <i>Amun</i> is being cut. Fever still prevalent. Cholera reported from the Gaibanda sub-division.
	14 Bogra, „ 13 „	Nil	Weather—getting colder. <i>Amun</i> paddy being harvested. Cold-weather crops doing fairly well. Public health fair.
	15 Pubna, „ 12 „	Nil	Weather—cold. Winter crops doing well. Fever abating in Serajganj.
	16 Darjeeling, „ 13 „	Nil	Weather—frosty and clear. <i>Haimanti</i> paddy and <i>murwa</i> show a falling off in yield owing to want of rain during the transplanting season. Public health good.
	17 Tulpigoree, „ 13 „	Nil	Weather—seasonable; mornings foggy. <i>Haimanti</i> paddy being cut and is on the whole a fair crop, though below the average. Cold-weather crops all doing well. Public health fairly good; fever still prevalent.
Eastern Districts.			
DACCA DIV.	18 Dacca, Dec. 13 '84	Nil	Weather—cold. <i>Amun</i> and <i>roachia</i> paddy are being harvested; outturn good. Cutting of sugarcane continues. Pulses are being sown. <i>Boro</i> being transplanted. Prospects of crops good. Some cases of cholera are reported from parts of the district.
	19 Furreedpore, „ 13 „	Nil	Weather—cold and clear. Condition of crops good. Prices falling. Cholera abating.
	20 Backergunge, „ 11 „	Nil	Weather—seasonable. Reaping of <i>amun</i> paddy continues. Fever and cholera are still prevailing in some parts of the district.
	21 Mymensingh, „ 12 „	Nil	Weather—seasonable. Prospects of crops good. Cholera still present in the district, but it is abating.

No.	District and date of return.	Rainfall at Sudder Station in inches.	Character of the weather, state and prospects of the crops, and state of health at date.
<b>BENGAL.—<i>concl'd</i></b>			
<i>Eastern Districts.</i>			
CHITTAGONG DIVN.	22 Chittagong, Dec. 15 '84	Nil	Weather—seasonable. Prospects of crops good. Outturn of <i>amun</i> paddy is estimated at twelve annas. Prices of food grains stationary. Cholera still reported.
	23 Noakholy, „ 12 „	Nil	Weather—fair and seasonable. <i>Amun</i> paddy is being harvested. <i>Rubbee</i> crops are being sown. Cholera reported from Rangunge, Begungunge, and Senbag.
	24 Tipperah, „ 11 „	Nil	Weather—seasonable, cool and fine. Harvesting of paddy continues with good outturn. <i>Rubbee</i> crops thriving well. Prices stationary. Cholera reported from several stations, otherwise public health good.
	25 Chittagong Hill Tracts, „ 9 „	Nil	Weather—seasonable; cold and foggy in the morning. Gathering of cotton nearly over. Mustard is being sown. Plough-paddy doing well. Public health fairly good.
	Hill Tipperah, „ 10 „	Nil	Weather—seasonably cool. <i>Amun</i> paddy is still being reaped. <i>Til</i> and cotton are being gathered. Sowing of chillies, tobacco and mustard completed. Public health good.
<b>BEHAR.</b>			
PATNA DIVN.	26 Patna, Dec. 13 '84	Nil	Weather—seasonable. Reaping of paddy and <i>jowar</i> is going on. <i>Rubbee</i> crops are growing splendidly. Gram, peas and linseed are flowering. Poppy is growing well. Public health good.
	27 Gya, „ 13 „	Nil	Weather—rather cool and dry until this day, when sky cloudy. Both <i>rubbee</i> and poppy crops promise well. Paddy and <i>kurthee</i> are in process of harvesting. Sugarcane pressing has commenced. Public health good.
	28 Shahabad, „ 13 „	Nil	Weather—cloudy. Prospects of crops, including those of poppy, excellent.
	29 Durbhanga, „ 13 „	Nil	Weather—seasonable. Tobacco, paddy and <i>rubbee</i> crops doing well. New rice coming into the market. Prices almost stationary except those of the new rice which is slightly falling. Public health good.
	30 Mozufferpore, „ 12 „	Nil	Weather—seasonable. Harvesting of paddy in progress; <i>rubbee</i> crops continue to be very promising. Prospects of poppy generally favourable, excepting slight injury done by grasshoppers in certain places.
	31 Sarun, „ 13 „	Nil	Weather—fair; gradually getting colder. Harvesting of paddy briskly going on; prospects of <i>rubbee</i> crops continue favourable; young poppy plants are looking strong and healthy. Prices of food-grains falling. Public health good.
	32 Chumparan „ 13 „	Nil	Weather—seasonable. Prospects of crops continue favourable. <i>Aghani</i> paddy is being reaped. Young poppy plants looking healthy, weeding is in progress. Public health good; some cases of fever are reported from the interior.
BHAGULPORE DIVN.	33 Monghyr, Dec. 13 '84	Nil	Weather—seasonable; warmer and cloudy last two days. <i>Aghani</i> paddy is being reaped throughout the district. Prospects of <i>rubbee</i> crops continue good. Prospects of poppy good. Prices stationary. Outbreak of small-pox reported at Kharagpur, otherwise public health good.
	34 Bhagulpore, „ 13 „	Nil	Weather—cold and bright, warm and cloudy for last two days of the week. Harvesting of paddy going on; 11 annas outturn in the south, 12 annas in the north expected. <i>Rubbee</i> crops promising, but some injury has been done by blight. Public health good, but some cases of fever are reported from the tracts on the banks of the Kusi. Prices falling. Rice selling at 14 seers per rupee in the south and 20 seers in the north.
	35 Purneah, „ 13 „	Nil	Weather—fine and seasonable. Prospects of <i>rubbee</i> crops still continue good; rain will soon be required, however, in parts of the district. <i>Aghani</i> paddy very poor in the Sudder thana. A few cases of cholera, fever abating.
	36 Maldah, „ 13 „	Nil	Weather—fine and cool. Harvesting of winter paddy continues; the general outturn is about eight annas of an average crop. Prospects of <i>rubbee</i> crops good. <i>Kalai</i> and mustard have been damaged by insects. Prices of food-grains stationary. General health good.
	37 Sonthal Pergha, „ 13 „	Nil	Weather—cold with occasional clouds. Cutting of <i>aghani</i> paddy is now well advanced. Prospects of <i>rubbee</i> crops continue to be favourable; a little rain would considerably improve these crops. Prices inclining to fall. Public health good.
<b>ORISSA.</b>			
ORISSA DIVN.	38 Cuttack, Dec. 12 '84	Nil	Weather—very cold. Reaping of <i>sarad</i> in progress; late <i>sarad</i> ripening and in some places it is being cut with favourable outturn. <i>Rubbee</i> crops flowering. Price of rice stationary, notwithstanding the large export. Public health generally good except that cholera still continues here and there.
	39 Pooree, „ 11 „	Nil	Weather—seasonable. <i>Sarad</i> is being harvested. <i>Dalua</i> and <i>rubbee</i> crops are being sown. Sugarcane is being crushed. Miscellaneous crops doing well. Common rice selling at an average of 22 seers 10 chittacks per rupee in the Sudder sub-division and 25 seers 5 chittacks in the Khorda sub-division. Cholera still reported.
	40 Balasore „ 12 „	Nil	Weather—seasonable. Harvesting of <i>sarad</i> in progress. Prospects of <i>rubbee</i> crops continue favorable. Sporadic cases of cholera and fever are reported from the interior.
<b>CHOTA NAGPORE.</b>			
<i>South-West Frontier Agency.</i>			
	41 Hazaribagh, Dec. 12 '84	Nil	Weather—very cold. Harvesting of paddy continues. <i>Rubbee</i> crops doing well. Prospect of poppy fair where water is procurable. Public health generally good.
	42 Lohardugga, „ 13 „	Nil	Weather—seasonable. Sky cloudy at times, and it is hoped some rain may soon fall which will prove very beneficial to <i>rubbee</i> crops, prospects of which continue generally good. Harvesting of paddy mostly over. Prices easy. General health good.
	43 Singbhoom, „ 12 „	Nil	Weather—seasonable. Harvesting of late paddy continues with an excellent outturn. All cold-weather crops are also doing well. General health good.
	44 Manbhoom, „ 13 „	Nil	Weather—seasonable. Harvesting of paddy continues briskly. Sugarcane and cotton growing. Coarse rice (new) sold at the Purulia market on the 13th instant at 22 seers per rupee. Public health good.

Published for general information.

CALCUTTA, STATISTICAL DEPT.,  
The 16th December 1884.COLMAN MACAULAY,  
Secy. to the Govt. of Bengal.



## Results of the Meteorological Observations taken at the Alipore Observatory from 7th to 13th December 1884.

Month.	Date.	Maximum in sun.	Number of hours of bright sunshine.	Mean pressure barometer at 29° Fahr.	TEMPERATURE.				HYGROMETRY.				WIND.		Rain.	WEATHER.
					Mean.	Maximum.	Range.	Minimum.	Mean wet bulb.	Vapour tension.	Dew point.	Humidity.	Prevailing direction.	Miles recorded.		
1884.		°		Inches.	°	°	°	°	°	Inches	°	%			Inches.	
Dec.	7th	128.5	9.7	30.095	64.0	75.9	19.4	56.5	58.0	0.407	53.2	70	N by W and N by E	131	Nil.	Partially cloudy, P.
"	8th	129.5	9.9	30.076	63.4	74.8	19.0	55.6	56.7	0.373	50.8	68	N by E, NNW and WNW.	117	"	Partially cloudy, P.
"	9th	130.6	9.5	30.015	62.5	75.1	22.3	52.8	56.5	0.381	51.4	68	NW by W and NNW	85	"	Partially cloudy, P.
"	10th	126.4	9.2	29.980	63.0	76.6	23.9	52.7	57.9	0.417	53.9	74	WNW and NW by N	71	"	Partially cloudy, P.
"	11th	125.7	8.5	30.032	65.2	76.6	19.3	57.3	60.3	0.461	56.7	76	NW by N and NNW	60	"	Partially cloudy, P.
"	12th	128.0	9.7	30.123	64.7	76.6	20.3	56.3	60.4	0.471	57.2	77	NNW, N and NW by W.	66	"	Clear, P.
"	13th	128.7	9.3	30.091	64.3	76.6	21.4	55.2	59.4	0.442	55.5	73	NW by W and NNW	64	"	Clear, P.

The mean pressure of the seven days ... 30.059

The average pressure of the corresponding period for 24 years, S. G.'s Office ... 30.024

The total number of hours of bright sunshine ... 66.3

The maximum possible number of hours of sunshine ... 75.2

The mean temperature of the seven days ... 63.9

The average temperature of the corresponding period for 24 years, S. G.'s Office ... 63.4

The extreme variation of temperature ... 23.9

The maximum temperature ... 76.6

The highest velocity of the wind in one hour ... 11

The highest pressure of wind on one square foot ... Not measureable

The mean relative humidity ... 72

The average relative humidity of the corresponding period for 24 years, S. G.'s Office ... 71

The total fall of rain from 7th to 13th December 1884 ... Nil

The average fall of the corresponding period for 24 years, S. G.'s Office ... 0.03

The total fall from 1st January to 13th December 1884 ... 62.61

The average fall of the corresponding period for 24 years, S. G.'s Office ... 65.22

The mean pressure, temperature, &c., are deduced from the traces of the Barograph and Thermograph, and from observations made at 6h, 10h, 16h, and 22h.

The maximum and minimum temperatures are obtained from self-registering thermometers. All the thermometers are verified, and the readings have been corrected to a standard constructed and verified at the Kew Observatory. They are exposed under a thatched shed open at the sides, and are suspended four feet above the ground.

The barometer readings are corrected approximately to those of the standard Newman's No 86 formerly at the Surveyor-General's Office.

The hygrometric elements are obtained from Tables III, IV, and V of the official tables computed in the Meteorological Office, and based on Regnault's modifications of August's formula.

The directions and the movement of the wind are taken from the trace of a Beckley's anemograph.

The mouth of the rain-gauge is one foot above the ground.

c. dew; = fog.

W. L. DALLAS,

METEOROLOGICAL OFFICE, INDIA;  
Calcutta, the 15th December 1884.

For Meteorological Reporter to the Government of India.

## Meteorological Report of the Province of

METEOROLOGICAL DIVISION.			STATION OBSERVATIONS.																
			DISTRICT.	Representative stations.	AIR PRESSURE.					TEMPERATURE.					HUMIDITY.		CLOUD.		Rainfall.
					Highest, 10 A.M., barometer reading of month.	Lowest, 10 A.M., barometer reading of month.	Mean, 10 A.M., for month.	Mean reduced to sea-level.	Variation from normal mean.	Highest of month.	Lowest of month.	Mean daily maximum temperature.	Mean daily minimum temperature.	Mean daily temperature.	Variation from normal mean.	Mean, 10 A.M., humidity.	Variation from normal mean.	Mean cloud amount, 10 A.M.		Variation from normal mean, 10 A.M.
ORISSA.	Pooree	Gopalpore	30.100	29.872	29.994	30.044	—	81.6	57.0	78.4	66.0	72.2	—	64	—	2.2	—	Nil	
		False Point	30.133	29.879	30.029	30.051	+0.04	87.4	52.5	80.7	66.8	70.8	-3.6	62	-10	3.8	+0.5	0.09	
	Cuttack	Cuttack	30.075	29.831	29.972	30.056	+0.17	88.9	56.3	83.9	62.5	73.2	-2.5	57	-11	2.7	+0.4	Nil	
	Balasore	Balasore	30.105	29.839	30.007	30.067	—	85.5	50.5	81.0	58.5	69.7	—	53	—	0.9	—	Nil	
SOUTH-WEST BENGAL.	South-West Midnapore and South 24-Pergunnahs.	Saugor Island	30.124	29.819	30.021	30.048	+0.01	84.2	55.9	79.6	64.2	71.9	-2.8	67	-8	3.9	+1.4	Nil	
	Midnapore	Midnapore	30.014	29.777	29.912	30.067	—	85.8	52.2	81.0	58.7	69.8	—	51	—	2.1	—	Nil	
	24-Pergunnahs, Howrah, and Hooghly.	Calcutta	30.132	29.839	30.029	30.051	+0.21	85.1	53.3	79.9	62.2	71.1	-2.2	61	-13	2.2	-0.2	Nil	
	Burdwan	Burdwan	30.079	29.804	29.965	30.069	+0.19	85.5	53.1	81.0	60.5	70.8	-2.7	55	-13	2.2	-0.4	Nil	
	West Burdwan, Bankura, and Beerbhoom.	Raniganj	29.831	29.583	29.727	—	—	86.5	52.2	81.8	57.4	69.6	—	55	—	1.5	—	Nil	
	Moorshedabad	Berhampore	30.103	29.835	29.990	30.059	+0.15	83.6	55.7	80.0	61.0	70.5	-3.3	66	-7	1.3	-1.4	Nil	
	Nuddea	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	Jessore and Khoolna	Jessore	30.116	29.825	30.005	30.040	+0.08	84.7	52.5	81.4	61.0	71.2	-2.7	63	-10	2.4	+0.2	0.12	
EAST BENGAL.	Chittagong	Chittagong	30.039	29.775	29.930	30.022	+0.07	85.1	56.9	80.1	63.6	71.9	-2.9	80	+2	3.6	+1.1	3.25	
	Chittagong Hill Tracts	Demagri	—	—	—	—	—	83.9	59.1	79.4	64.4	71.9	-1.5	—	—	1.9	+1.3	2.02	
	Backergunj	Barrisal	30.016	29.838	29.946	—	—	83.1	58.1	77.1	64.8	70.9	—	78	—	2.4	—	2.95	
	Noakholly	Noakholly	30.057	29.837	29.967	30.012	—	87.5	55.2	80.6	63.1	71.8	—	71	—	1.2	—	9.45	
	Furreedpore	Furreedpore	30.086	29.877	29.967	—	—	83.5	53.0	80.1	61.6	70.8	—	66	—	2.0	—	0.39	
	Dacca	Dacca	30.120	29.888	30.004	30.027	+0.19	87.3	56.0	81.4	62.3	71.8	-2.9	71	-1	1.7	-0.3	0.87	
	Commillah	Commillah	30.093	29.881	29.985	30.021	—	86.4	54.0	81.9	61.8	71.8	—	72	—	0.9	—	2.07	
	Mymensingh	Mymensingh	30.071	29.840	29.932	—	—	85.4	58.1	81.8	66.4	74.1	—	69	—	4.5	—	0.9	
NORTH BENGAL.	Bogra and Pubna	Serajgunj	30.117	29.878	29.991	30.039	—	85.2	52.1	80.4	59.9	70.1	—	70	—	1.9	—	0.09	
	Rajshahye	Rampore Beaulah.	30.071	29.817	29.959	30.035	—	?	47.7	?	56.0	?	—	59	—	0.5	—	Nil	
	Dinapore	Dinapore	30.044	29.797	29.929	30.052	—	85.6	52.2	80.9	56.5	68.7	—	62	—	0.4	—	Nil	
	Rungpore	Rungpore	30.043	29.828	29.925	30.054	—	85.8	50.1	81.1	56.5	69.0	—	70	—	0.6	—	Nil	
	Julpigoree and Cooch Behar.	Julpigoree	29.869	29.630	29.746	30.040	—	84.9	41.1?	81.0	53.8	67.4	—	60	—	0.8	—	Nil	
	Darjeeling Hill Tracts.	Darjeeling	23.112	23.612	23.669	—	—	62.1	35.6	52.8	38.5	45.7	—	75	—	3.4	—	0.03	
	Purneah and North Bhagulpore.	Purneah	30.052	29.810	29.927	30.058	+0.29	84.7	43.7	79.5	52.6	66.0	-5.4	68	-1	0.4	-0.7	Nil	
	Mozufferpore and Durbhunga.	Durbhunga	30.014	29.798	29.902	30.076	+0.61	83.4	53.4	78.5	59.1	68.8	-2.9	67	-2	0.3	-0.8	Nil	
SOUTH BENGAL.	Chumparum	Motihari	29.935	29.731	29.824	30.059	—	85.6	46.8	80.2	52.8	66.5	—	59	—	0.5	—	Nil	
	Sarun	Chupra	29.949	29.641	29.860	—	—	84.5	50.7	79.9	56.9	68.4	—	60	—	0.4	—	Nil	
	Shahabad	Arrah	29.967	29.743	29.852	30.056	—	84.3	48.1	79.2	55.1	67.2	—	56	—	0.3	—	Nil	
		Dehree	29.789	29.598	29.707	30.075	—	87.9	50.0	76.2	58.0	67.1	—	51	—	0.3	—	Nil	
		Buxar	29.918	29.716	29.815	30.065	—	84.4	46.4	80.1	55.5	67.8	—	40	—	0.4	—	Nil	
	Gya	Gya	29.785	29.557	29.676	30.066	?	84.3	45.1	80.6	54.3	67.5	-3.5	44	-12	0.2	-1.7	Nil	
	Patna	Bankipore	30.018	29.785	29.905	30.097	+0.30	83.3	51.8	78.9	57.6	68.3	-2.1	60	-2	0.5	-1.4	Nil	
	South Bhagulpore and Monghyr.	Bhagulpore	29.959	29.754	29.854	30.051	—	83.4	50.0	78.5	55.5	67.0	—	57	—	0.3	—	Nil	
CHUTIA NAGPUR.	Sonthal Pergunnahs	Naya Doomka.	29.654	29.424	29.547	—	—	83.6	49.6	79.4	55.6	67.5	—	70	—	0.3	—	Nil	
	Hazaribagh	Hazaribagh	28.104	27.915	28.013	30.076	+0.06	79.4	50.3	75.3	54.1	64.7	-2.8	42	-12	0.6	-1.7	Nil	
	Lohardugga and Manbhoom.	Ranchee	27.968	27.796	27.883	30.062	—	80.8	46.4	73.9	52.4	63.2	—	50	—	0.5	—	Nil	
	Singbhoom	Chaibassa	29.353	29.113	29.247	—	—	?	48.0	?	53.3	?	—	46	—	1.1	—	Nil	



Bengal for the month of November 1884.

DISTRICT OBSERVATIONS.										Representative stations.	DISTRICT.	METEOROLOGICAL DIVISION.
RAINFALL.												
Of month.					Since 15th May.							
Mean of district.	Normal mean.	Variation from mean.	Number of rainy days.	Normal mean number of rainy days.	Mean of district.	Normal mean.	Variation.	Mean number of rainy days.	Normal mean number of rainy days.			
—	—	—	—	—	—	—	—	—	—	Gopalpore ... }	Pooree ... }	ORISSA.
0.00	2.05	-1.99	1.5	2.8	49.49	57.10	-7.61	81.4	79.2	False Point ... }	...	
Nil	0.95	-0.95	0.0	1.4	47.65	52.20	-4.55	77.5	79.8	Cuttack ... }	Cuttack ... }	
0.02	0.95	-0.93	0.2	1.5	56.08	53.33	+2.75	79.6	75.6	Balasore ... }	Balasore ... }	SOUTH-WEST BENGAL.
Nil	0.66	-0.66	0.0	1.5	69.59	61.61	+7.98	90.9	83.6	Saugor Island ... }	South-West Midnapore and South 24-Pergunnahs.	
Nil	0.28	-0.28	0.0	1.0	43.01	49.80	-6.79	65.6	70.2	Midnapore ... }	Midnapore ... }	
0.02	0.39	-0.37	0.3	1.3	49.03	50.30	-1.27	87.7	89.7	Calcutta ... }	24-Pergunnahs, Howrah, and Hooghly.	SOUTH-WEST BENGAL.
Nil	0.37	-0.37	0.0	0.8	35.92	46.16	-10.24	70.0	74.2	Burdwan ... }	Burdwan ... }	
0.05	0.25	-0.20	0.1	0.8	38.94	50.96	-12.02	79.9	80.6	Ranigunj ... }	West Burdwan, Bankura, and Beerbhoom.	
Nil	0.31	-0.31	0.0	0.6	35.42	49.59	-14.17	71.3	75.9	Berhampore ... }	Moorshedabad ... }	EAST BENGAL.
Nil	0.39	-0.39	0.0	0.9	36.42	49.33	-12.91	65.6	74.8	...	Nuddea ... }	
0.28	0.43	-0.15	0.7	1.2	53.11	52.91	+0.20	80.6	88.0	Jessore ... }	Jessore and Khoolna ... }	
2.74	1.33	+1.41	2.5	2.1	106.64	111.71	-5.07	109.0	105.5	Chittagong ... }	Chittagong ... }	EAST BENGAL.
2.41	1.73	+0.68	2.0	2.4	62.66	85.73	-23.07	114.5	112.5	Demagri ... }	Chittagong Hill Tracts	
4.13	0.96	+3.17	1.0	1.7	83.11	76.23	+6.88	98.1	105.1	Barrisal ... }	Backergunj ... }	
7.83	2.11	+5.72	2.0	2.3	95.44	109.96	-14.52	100.5	109.9	Noakholly ... }	Noakholly ... }	EAST BENGAL.
0.63	0.41	+0.22	1.3	1.0	43.88	55.90	-12.02	74.0	87.7	Furreedpore ... }	Furreedpore ... }	
0.77	0.64	+0.13	1.0	1.3	47.81	58.64	-10.83	89.9	86.8	Dacca ... }	Dacca ... }	
1.81	0.67	+1.14	1.8	1.4	64.15	70.88	-6.73	85.7	97.3	Commillah ... }	Commillah ... }	NORTH BENGAL.
0.24	0.36	-0.12	1.0	1.0	46.04	68.51	-22.47	80.7	91.1	Mymensingh ... }	Mymensingh ... }	
0.16	0.42	-0.26	0.3	1.0	37.73	55.75	-18.02	62.1	74.8	Serajgunj ... }	Bogra and Pubna ... }	
Nil	0.24	-0.24	0.0	0.5	34.66	53.11	-18.45	75.3	77.8	Rampore Beaulah.	Rajshahye ... }	NORTH BENGAL.
Nil	0.00	-0.00	0.0	0.4	38.74	56.38	-17.64	73.7	75.0	Dinapore ... }	Dinapore ... }	
Nil	0.13	-0.13	0.0	0.3	49.70	75.41	-25.71	69.4	75.4	Rungpore ... }	Rungpore ... }	
Nil	0.07	-0.07	0.0	0.3	95.25	113.85	-18.60	83.8	97.5	Julpigoree ... }	Julpigoree and Cooch Behar.	NORTH BEHAR.
0.01	0.28	-0.27	0.5	1.2	113.61	152.08	-38.47	103.0	117.3	Darjeeling ... }	Darjeeling Hill Tracts...	
Nil	0.07	-0.07	0.0	0.2	46.18	57.60	-11.42	63.8	67.2	Purneah ... }	Purneah and North Bhagulpore.	
Nil	0.09	-0.09	0.0	0.4	34.69	42.14	-7.45	49.8	55.4	Durbhunga ... }	Mozufferpore and Durbhunga.	NORTH BEHAR.
Nil	0.08	-0.08	0.0	0.4	41.79	43.94	-2.15	47.0	52.3	Motihari ... }	Chumparun ... }	
Nil	0.23	-0.23	0.0	0.4	30.52	40.78	-10.26	52.5	55.3	Chupra ... }	Sarun ... }	
Nil	0.31	-0.31	0.0	0.5	29.10	39.05	-9.95	49.1	59.8	Arrah ... }	Shahabad ... }	SOUTH BEHAR.
Nil	0.26	-0.26	0.0	0.6	27.74	39.61	-11.87	51.6	53.4	Buxar ... }	...	
Nil	0.22	-0.22	0.0	0.4	29.00	40.33	-11.33	54.6	57.9	Gya ... }	Gya ... }	
Nil	0.22	-0.22	0.0	0.4	31.05	41.90	-10.85	54.4	64.3	Bankipore ... }	Patna ... }	SOUTH BEHAR.
Nil	0.22	-0.22	0.0	0.4	31.05	41.90	-10.85	54.4	64.3	Bhagulpore ... }	South Bhagulpore and Monghyr.	
Nil	0.19	-0.19	0.0	0.7	33.44	48.59	-15.15	73.9	71.5	Naya Doomka...	Sonthal Pergunnahs ... }	
Nil	0.39	-0.39	0.0	1.4	34.10	46.52	-12.42	78.5	80.8	Hazaribagh ... }	Hazaribagh ... }	CHUTIA NAG-PER.
Nil	0.35	-0.35	0.0	1.1	36.08	47.08	-10.10	82.7	78.5	Ranchee ... }	Lohardugga and Manbhoom.	
Nil	0.27	-0.27	0.0	1.4	44.07	50.97	-6.90	80.0	91.1	Chaibassa ... }	Singthoom ... }	

Table of Rainfall recorded at Stations

Meteorological division.	District.	Station.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
ORISSA	Pooree	Pooree	...	...	...	...	...	...	...	...	...	...	...	0.01	0.01	...	...	...	...	...	...	...
		Khurdah	...	...	...	...	...	...	...	...	...	...	...	0.01	0.02	...	...	...	...	...	...	...
		Bampur	...	...	...	...	...	...	...	...	...	...	...	...	0.10	...	...	...	...	...	...	...
		Faise Point	...	...	...	...	...	...	...	...	...	...	...	0.03	0.03	...	...	...	...	...	...	...
	Cuttack	Hookitola	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Jagatsingapore	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Banki	...	...	...	...	...	...	...	...	...	...	...	0.01	...	...	...	...	...	...	...	...
		Cuttack	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Balasore	Kendrapara	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Jajpore	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Chandbali	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Bhuddruck	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
SOUTH-WEST BENGAL	Midnapore	Sorah	...	...	0.12	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Balasore	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Jellasore	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Baripodah	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	24-Pergunnahs	Contai	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Saugor Island	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Tumlook	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Midnapore	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Diamond Harbour.	Ghatal	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Diamond Har-	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		bour.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Alipore Jail	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Howrah	Barrackpore	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Dum-Dum	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Baraset	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Buseerhat	0.02	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Hooghly	Howrah	0.01	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Mohesreka	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	(Oolberiah).	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Serampore	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Burdwan	Hooghly	0.18	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Jehanabad	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Culna	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Burdwan	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Bankoora	Cutwa	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Rauegunge	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Bankoora	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Indus	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Beerbhoom	Bishenpore	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Kotulpore	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Maliara	0.33	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Onda	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Nuddea	Khatra	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Bh. Soory	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Hetampore	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Bongong	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Khoolna	Ranaghat	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Kishnaghat	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Choodanga	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Meherpore	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Jessore	Kooshta	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Satkira	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Bagirhat	1.05	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Khoolna	0.50	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Moorshedabad	Narsil	0.17	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Jessore	0.12	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Jhenidah	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Magoorah	0.12	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
EAST BENGAL	Chittagong	Kandi	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Rampore Haut	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Herhampore	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Lalbagh	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Chittagong Hill Tracts.	Azingunge	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Jungpore	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Lalgola	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Cox's Bazar	2.46	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Backergunge	Chittagong	0.12	...	...	...	...	...	...	...	...	...	...	...	0.01	...	...	...	...	...	...	...
		Rangamati	2.16	0.25	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Raicha	2.05	0.08	...	...	...	...	...	...	...	...	...	...	0.05	...	...	...	...	...	...	...
		Agartola	1.53	0.48	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Noakholly	Patuakhally	6.00	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Perozepore	3.75	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Burrisal	3.71	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Chola	3.06	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Furriedpore	Noakholly	8.00	...	...	...	...	...	...	...	...	...	...	...	0.02	...	...	...	...	...	...	...
		Fenny	0.50	0.24	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Madaripore	1.25	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Furriedpore	0.22	0.00	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Dacca	Goalanoo	0.30	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Munshigunge	1.24	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Dacca	0.85	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Namungunge	1.05	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	



in Bengal in November 1884.

21	22	23	24	25	26	27	28	29	30	Number of rainy days.	Average number of rainy days.	Total rainfall for the month.	Average rainfall for the month.	Heaviest rainfall during the month.	Total rainfall from 1st January 1884 up to 30th November 1884.	Average rainfall from 1st January up to 30th November 1884.	Station.	District.	Meteorological division.
...	...	...	...	...	...	...	...	...	...	1	2.9	0.01	1.83	0.01	64.63	55.64	Pooree.	Pooree	ORISSA.
...	...	...	...	...	...	...	...	...	...	2	2.9	0.03	1.53	0.02	53.49	61.05	Khurdah.		
...	...	...	...	...	...	...	...	...	...	1	2.4	0.10	1.48	0.10	49.88	52.68	Banpur.		
...	...	...	...	...	...	...	...	...	...	2	3.1	0.09	2.17	0.06	55.25	70.76	False Point.		
...	...	...	...	...	...	...	...	...	...	0	?	Nil	?	—	40.52	?	Hookitola.		
...	...	...	...	...	...	...	...	...	...	0	1.0	Nil	1.23	—	58.45	59.80	Jagatsingapore	Cuttack.	
...	...	...	...	...	...	...	...	...	...	1	?	0.01	?	0.01	47.22	?	Banki.		
...	...	...	...	...	...	...	...	...	...	0	2.4	Nil	0.99	—	58.97	57.41	Cuttack.		
...	...	...	...	...	...	...	...	...	...	0	1.3	Nil	0.89	—	42.73	57.03	Kendrapara.		
...	...	...	...	...	...	...	...	...	...	0	1.0	Nil	0.64	—	51.59	59.48	Jajpore.		
...	...	...	...	...	...	...	...	...	...	0	1.8	Nil	1.27	—	67.28	69.44	Chandbali	Balasore.	
...	...	...	...	...	...	...	...	...	...	0	1.9	Nil	0.95	—	63.65	58.36	Bhuddruck.		
...	...	...	...	...	...	...	...	...	...	1	1.5	0.12	0.81	0.12	49.80	57.33	Sorah.		
...	...	...	...	...	...	...	...	...	...	0	1.8	Nil	1.16	—	76.24	67.10	Balasore.		
...	...	...	...	...	...	...	...	...	...	0	0.8	Nil	0.41	—	52.35	59.10	Jellasore.		
...	...	...	...	...	...	...	...	...	...	0	1.0	Nil	0.49	—	61.95	60.08	Baripodah.		
...	...	...	...	...	...	...	...	...	...	0	1.1	Nil	1.04	—	74.55	70.72	Contai	Midnapore	SOUTH-WEST BENGAL.
...	...	...	...	...	...	...	...	...	...	0	1.9	Nil	0.71	—	82.73	74.06	Saugor Island.		
...	...	...	...	...	...	...	...	...	...	0	1.1	Nil	0.24	—	51.50	57.99	Tumlook.		
...	...	...	...	...	...	...	...	...	...	0	1.4	Nil	0.37	—	54.25	57.18	Midnapore.		
...	...	...	...	...	...	...	...	...	...	0	0.4	Nil	0.14	—	46.98	58.67	Ghatol.		
...	...	...	...	...	...	...	...	...	...	0	1.6	Nil	0.41	—	78.12	67.32	Diamond Har-	24-Pergunnahs.	
...	...	...	...	...	...	...	...	...	...	0	1.5	Nil	0.36	—	63.94	61.48	baur.		
...	...	...	...	...	...	...	...	...	...	0	1.4	Nil	0.58	—	55.49	54.11	Alipore Jail.		
...	...	...	...	...	...	...	...	...	...	0	1.5	Nil	0.27	—	63.46	58.47	Barrackpore.		
...	...	...	...	...	...	...	...	...	...	0	1.3	Nil	0.33	—	56.05	57.20	Dum-Dum.		
...	...	...	...	...	...	...	...	...	...	1	1.3	0.02	0.40	0.02	71.69	61.23	Baraset.		
...	...	...	...	...	...	...	...	...	...	1	2.0	0.01	0.32	0.01	54.61	61.42	Busserhat.		
...	...	...	...	...	...	...	...	...	...	0	1.0	Nil	0.57	—	54.91	59.50	Howrah.	Howrah.	
...	...	...	...	...	...	...	...	...	...	0	1.2	Nil	0.25	—	64.11	56.78	Mohesreka		
...	...	...	...	...	...	...	...	...	...	0	1.0	Nil	0.56	—	46.02	58.85	(Oolbertah).		
...	...	...	...	...	...	...	...	...	...	1	0.4	0.18	0.26	0.18	43.74	60.92	Serampore	Hooghly.	
...	...	...	...	...	...	...	...	...	...	0	0.6	Nil	0.40	—	43.11	50.86	Hooghly.		
...	...	...	...	...	...	...	...	...	...	0	1.0	Nil	0.53	—	42.20	58.03	Jehanabad.		
...	...	...	...	...	...	...	...	...	...	0	0.7	Nil	0.25	—	42.76	53.84	Culina	Burdwan.	
...	...	...	...	...	...	...	...	...	...	0	0.7	Nil	0.23	—	43.73	50.68	Burdwan.		
...	...	...	...	...	...	...	...	...	...	0	0.7	Nil	0.41	—	61.64	56.23	Cutwa.		
...	...	...	...	...	...	...	...	...	...	0	0.4	Nil	0.02	—	43.87	54.15	Raneegunge.		
...	...	...	...	...	...	...	...	...	...	0	0.4	Nil	?	—	?	?	Bankoora	Bankoora.	
...	...	...	...	...	...	...	...	...	...	1	1.0	0.33	0.32	0.33	39.71	49.50	Indus.		
...	...	...	...	...	...	...	...	...	...	0	1.5	Nil	0.53	—	49.04	59.07	Bishempore.		
...	...	...	...	...	...	...	...	...	...	0	1.0	Nil	0.13	—	45.49	55.11	Kotulpore.		
...	...	...	...	...	...	...	...	...	...	0	0.6	Nil	0.15	—	?	?	Mallara.		
...	...	...	...	...	...	...	...	...	...	0	0.9	Nil	0.35	—	43.78	57.57	Onda.		
...	...	...	...	...	...	...	...	...	...	0	0.6	Nil	0.43	—	44.84	55.23	Khatra.		
...	...	...	...	...	...	...	...	...	...	0	1.1	Nil	0.41	—	38.34	54.69	Bh. Soory	Beerbhoom.	
...	...	...	...	...	...	...	...	...	...	0	0.9	Nil	0.56	—	45.83	59.97	Hetampore.		
...	...	...	...	...	...	...	...	...	...	0	0.8	Nil	0.16	—	41.95	54.60	Bongong	Nuddea.	
...	...	...	...	...	...	...	...	...	...	0	0.9	Nil	0.39	—	51.42	62.32	Ranoghat.		
...	...	...	...	...	...	...	...	...	...	0	1.4	Nil	0.44	—	71.14	63.65	Kishnaghur.		
...	...	...	...	...	...	...	...	...	...	1	1.2	1.05	0.64	1.05	81.35	70.89	Choodanga.		
...	...	...	...	...	...	...	...	...	...	1	1.2	0.59	0.51	0.59	79.97	65.48	Meherpore.		
...	...	...	...	...	...	...	...	...	...	1	1.0	0.17	0.48	0.17	44.29	57.31	Kooshtea.		
...	...	...	...	...	...	...	...	...	...	1	1.3	0.12	0.89	0.12	69.49	67.49	Satkira	Khoolna.	
...	...	...	...	...	...	...	...	...	...	0	1.1	Nil	0.28	—	60.92	63.45	Bagirhat.		
...	...	...	...	...	...	...	...	...	...	1	1.2	0.12	0.26	0.12	56.03	59.30	Khoolna.		
...	...	...	...	...	...	...	...	...	...	0	0.4	Nil	0.42	—	38.50	54.48	Narail	Jessore.	
...	...	...	...	...	...	...	...	...	...	0	0.7	Nil	0.19	—	36.09	53.15	Jhenidah.		
...	...	...	...	...	...	...	...	...	...	0	0.4	Nil	0.30	—	39.31	55.08	Magoorah.		
...	...	...	...	...	...	...	...	...	...	0	0.6	Nil	0.28	—	39.34	53.16	Kandi	Moorshedabad.	
...	...	...	...	...	...	...	...	...	...	0	0.8	Nil	0.23	—	43.45	53.88	Rampore Haut.		
...	...	...	...	...	...	...	...	...	...	0	0.6	Nil	0.12	—	36.06	51.92	Berhampore.		
...	...	...	...	...	...	...	...	...	...	0	0.5	Nil	0.26	—	41.42	53.86	Lalbagh.		
...	...	...	...	...	...	...	...	...	...	2	2.3	2.61	1.58	2.46	149.73	141.14	Azingunge.		
...	...	...	...	...	...	...	...	...	...	3	2.0	2.87	1.48	2.74	104.06	103.35	Jungipore.		
...	...	...	...	...	...	...	...	...	...	2	2.4	2.41	1.67	2.16	78.76	97.29	Lalgola.		
...	...	...	...	...	...	...	...	...	...	3	?	2.18	?	2.05	92.65	?	Cox's Bazar	Chittagong	EAST BENGAL.
...	...	...	...	...	...	...	...	...	...	2	1.5	2.01	1.05	1.53	73.23	78.75	Chittagong.		
...	...	...	...	...	...	...	...	...	...	1	1.3	6.00	1.70	6.00	109.73	99.20	Rangamati.	Chittagong	
...	...	...	...	...	...	...	...	...	...	1	1.9	3.75	1.15	3.75	92.40	78.63	Raicha.	Hill Tracts.	
...	...	...	...	...	...	...	...	...	...	1	2.1	3.71	0.95	3.71	97.69	79.38	Agartola.		
...	...	...	...	...	...	...	...	...	...	1	1.7	3.06	1.01	3.06	101.54	93.57	Patunkhally	Backergunge.	
...	...	...	...	...	...	...	...	...	...	2	2.3	8.92	1.77	8.90	117.95	111.60	Perozepore.		
...	...	...	...	...	...	...	...	...	...	2	2.3	6.74	3.40	6.50	115.12	122.18	Barrisal.		
...	...	...	...	...	...	...	...	...	...	1	0.9	1.25	0.45	1.25	61.41	65.25	Bhola.		
...	...	...	...	...	...	...	...	...	...	2	1.2	0.35	0.63	0.26	58.31	60.68	Noakholly	Noakholly.	
...	...	...	...	...	...	...	...	...	...	1	1.0	0.30	0.39	0.39	49.69	63.48	Fenny.		
...	...	...	...	...	...	...	...	...	...	1	1.2	1.24	0.92	1.24	74.06	86.77	Madaripore	Furreedpore.	
...	...	...	...	...	...	...	...	...	...	1	1.4	0.85	0.63	0.85	57.78	73.19	Furreedpore.		
...	...	...	...	...	...	...	...	...	...	1	?	1.05	?	1.05	57.90	?	Goalundo.		
...	...	...	...	...	...	...	...	...	...	1	1.3	0.21	0.42	0.21	55.69	61.11	Munshigunge	Dacca.	
...	...	...	...	...	...	...	...	...	...	2	2.0	2.23	1.38	1.80	95.86	92.83	Narsingang.		
...	...	...	...	...	...	...	...	...	...	1	1.2	1.85	0.59	1.83	88.50	96.74	Manickgunge		
...	...	...	...	...	...	...	...	...	...	2	1.0	1.15	0.57	1.02	81.52	79.29	Comilla	Comilla.	
...	...	...	...	...	...	...	...	...	...	1	1.1	0.56	0.40	0.56	59.01	81.43	Chandpore.		
...	...	...	...	...	...	...	...	...	...	0	1.0	Nil	0.27	—	38.39	65.70	Brahmunberia		
...	...	...	...	...	...	...	...	...	...	1	1.4	0.29	0.82	0.29	90.38	94.44	Kishoregunge.	Mymensingh.	
...	...	...	...	...	...	...	...	...	...	1	0.7	0.32	0.28	0.32	54.41	77.48	Atia.		
...	...	...	...	...	...	...	...	...	...	1	?	0.10	?	0.10	86.13	?	Mymensingh.		
...	...	...	...	...	...	...	...	...	...	1	?	?	?	?	?	?	Jamatpore.		
...	...	...	...	...	...	...	...	...	...	1	?	?	?	?	?	?	Netrokona.		

November 1884.

blank. If some of the returns are wanting, the corresponding spaces in the total rainfall columns are left blank.

Table of Rainfall recorded at Stations

Meteorological division.	District.	Station.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
NORTH BENGAL	Pubna	Pubna	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Serajgunge	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Bogra	Sherpore	0'47	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Nowkhilla	0'46	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Bogra	0'19	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Panchbibi	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Rajshahye	Beauleah	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Natore	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Maldah	Nowgong	0'10	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Maldah	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Dinapore	Mohadebore	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Churamon	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Raigunge	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Dinapore	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Rungpore	Balooghut	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Bhawanigunge	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		(Gyabanda).	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Rungpore	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
NORTH BEHAR	Julpigoree	Kurigram	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Bagdogra	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		(Nilphamari).	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Julpigoree	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Cooch Behar...	Dinhatta	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Cooch Behar...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Mickligunge...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Darjeeling Hill.	Matabhanga...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Buxa	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Siliguri	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
SOUTH BEHAR	Purneah	Darjeeling	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Kalimpung	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Kissengunge	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	North Bhagulpore.	Arraiah	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Purneah	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Maddapore	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Durbhunga	Scoopool	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Tajpore	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Durbhunga	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
CHUTIA POK.	Mozufferpore	Madhubani	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Sitamarhi	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Mozufferpore	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Chumparan...	Ilajipore	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Motihari	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Bettiah	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Sarun	Gopalgunge	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Sewan	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Chupra	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
CHUTIA POK.	Shahabad	Buxar	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Dehree	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Bhuboah	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Gya	Sasseram	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Arrah	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Aurangabad...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Patna	Gya	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Nowadah	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Jehanabad	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
CHUTIA POK.	Monghyr	Patna	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Dinapore	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Behar	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	South Bhagulpore.	Barrh	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Begoosera	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Monghyr	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Sonthal Pergunahs.	Jamui	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Bhagulpore	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Banka	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
CHUTIA POK.	Hazaribagh	Rajmehal	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Godda	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Pakour	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Lohardugga	Nya Doomka	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Deoghur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Jamtara	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Singbho...	Fachamba	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Hazaribagh	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Semtagurah	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
CHUTIA POK.	Maubhoom	Mahudi Hills	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Jhoomrah Hills	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Lohardugga	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Singbho...	Ranchi	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Palamow	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Chyebassa	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Maubhoom	Purulia	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Gobindpore	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Baripodah	1'46	0'06	2'32	0'30	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Semtagurah	...	0'25	0'05	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

Supplement to the Rainfa

\* Explanation—indicates that no rain has fallen. If the return for any day has not been received, the corresponding space is left blank.



in Bengal in November 1884—concluded.

21	22	23	24	25	26	27	28	29	30		Number of rainy days.	Average number of rainy days	Total rainfall for the month.	Average rainfall for the month.	Heaviest rainfall during the month.	Total rainfall from 1st January 1884 up to 30th November 1884.	Average rainfall from 1st January up to 30th November 1884.	Station.	District.	Meteorological division.
...	...	...	...	...	...	...	...	...	...	...	0	0.9	Nil	0.36	—	56.76	65.34	Pubna	Pubna	NORTH BENGAL.
...	...	...	...	...	...	...	...	...	...	...	0	0.9	Nil	0.44	—	54.82	61.13	Serajgunge.	...	...
...	...	...	...	...	...	...	...	...	...	...	1	1.1	0.47	0.76	0.47	47.44	67.63	Sherpore	Bogra.	...
...	...	...	...	...	...	...	...	...	...	...	1	1.5	0.46	0.71	0.46	47.24	61.71	Nowkhilla.	...	...
...	...	...	...	...	...	...	...	...	...	...	1	0.9	0.19	0.87	0.19	47.61	76.57	Bogra.	...	...
...	...	...	...	...	...	...	...	...	...	...	0	0.3	Nil	0.02	—	45.08	58.53	Panchibibi.	...	...
...	...	...	...	...	...	...	...	...	...	...	0	0.5	Nil	0.29	—	42.64	59.13	Beaulah	Rajshahye.	...
...	...	...	...	...	...	...	...	...	...	...	0	0.4	Nil	0.29	—	45.23	62.37	Natore.	...	...
...	...	...	...	...	...	...	...	...	...	...	1	?	0.10	?	0.10	51.05	?	Nowgong.	...	...
...	...	...	...	...	...	...	...	...	...	...	0	0.6	Nil	0.23	—	39.47	52.61	Maldah	Maldah.	...
...	...	...	...	...	...	...	...	...	...	...	0	0.5	Nil	0.14	—	40.59	59.88	Mohadebpore	Dinapore.	...
...	...	...	...	...	...	...	...	...	...	...	0	0.0	Nil	Nil	—	47.73	54.15	Churamon.	...	...
...	...	...	...	...	...	...	...	...	...	...	0	0.5	Nil	0.09	—	45.95	58.78	Kaigunge.	...	...
...	...	...	...	...	...	...	...	...	...	...	0	0.5	Nil	0.23	—	38.56	74.13	Dinapore.	...	...
...	...	...	...	...	...	...	...	...	...	...	0	0.4	Nil	0.03	—	41.40	47.09	Baloorgah.	...	...
...	...	...	...	...	...	...	...	...	...	...	0	0.2	Nil	0.12	—	55.58	69.73	Bhawanigunge (Gyabanda).	Rungpore.	...
...	...	...	...	...	...	...	...	...	...	...	0	0.4	Nil	0.31	—	65.12	84.42	Rungpore.	...	...
...	...	...	...	...	...	...	...	...	...	...	0	0.3	Nil	0.20	—	60.04	81.13	Kurigram.	...	...
...	...	...	...	...	...	...	...	...	...	...	0	0.2	Nil	0.03	—	58.64	93.74	Bazdogra, (Nilphamari).	...	...
...	...	...	...	...	...	...	...	...	...	...	0	0.3	Nil	0.12	—	110.87	128.03	Julpigoree	...	...
...	...	...	...	...	...	...	...	...	...	...	0	0.4	Nil	0.02	—	97.45	113.73	Dinhatta	Cooch Behar.	...
...	...	...	...	...	...	...	...	...	...	...	0	0.2	Nil	0.05	—	137.76	131.28	Cooch Behar.	...	...
...	...	...	...	...	...	...	...	...	...	...	0	0.2	Nil	0.03	—	97.63	119.59	Mickligunge.	...	...
...	...	...	...	...	...	...	...	...	...	...	0	0.2	Nil	0.04	—	99.28	128.84	Matabhanga.	...	...
...	...	...	...	...	...	...	...	...	...	...	0	1.7	Nil	0.38	—	149.08	215.84	Buxa	Darjeeling Hill.	...
...	...	...	...	...	...	...	...	...	...	...	0	?	Nil	?	—	89.93	?	Siliguri.	...	...
...	...	...	...	...	...	...	...	...	...	...	0	0.6	?	0.22	—	190.37	?	Darjeeling.	...	...
...	...	...	...	...	...	...	...	...	...	...	2	?	0.23	?	0.16	72.90	?	Kalimpong.	...	...
...	...	...	...	...	...	...	...	...	...	...	0	0.2	Nil	0.06	—	72.48	72.90	Kissengunge.	Purneah	NORTH BEHAR.
...	...	...	...	...	...	...	...	...	...	...	0	0.2	Nil	0.05	—	55.34	68.14	Arracah.	...	...
...	...	...	...	...	...	...	...	...	...	...	0	0.2	Nil	0.08	—	49.78	63.69	Purneah.	...	...
...	...	...	...	...	...	...	...	...	...	...	0	0.4	Nil	0.67	—	39.51	52.98	Maddapore	North Bhagulpore.	...
...	...	...	...	...	...	...	...	...	...	...	0	0.2	Nil	0.05	—	31.89	49.90	Soopool.	...	...
...	...	...	...	...	...	...	...	...	...	...	0	0.4	Nil	0.11	—	35.57	42.53	Tajpore	Durbhunga.	...
...	...	...	...	...	...	...	...	...	...	...	0	0.3	Nil	0.07	—	32.82	46.88	Durbhunga.	...	...
...	...	...	...	...	...	...	...	...	...	...	0	0.2	Nil	0.04	—	41.27	46.71	Madhubani.	...	...
...	...	...	...	...	...	...	...	...	...	...	0	0.2	Nil	0.01	—	40.32	43.34	Sitamarhi	Mozufferpore.	...
...	...	...	...	...	...	...	...	...	...	...	0	0.5	Nil	0.09	—	34.18	43.09	Mozufferpore.	...	...
...	...	...	...	...	...	...	...	...	...	...	0	0.6	Nil	0.16	—	34.40	43.63	Hajipore.	...	...
...	...	...	...	...	...	...	...	...	...	...	0	0.3	Nil	0.08	—	43.44	47.33	Motihari	Chumparan.	...
...	...	...	...	...	...	...	...	...	...	...	0	0.1	Nil	0.01	—	47.10	50.48	Bettiah.	...	...
...	...	...	...	...	...	...	...	...	...	...	0	0.8	Nil	0.18	—	42.46	47.83	Gopalgunge	Saran.	...
...	...	...	...	...	...	...	...	...	...	...	0	0.4	Nil	0.11	—	29.93	44.95	Sewau.	...	...
...	...	...	...	...	...	...	...	...	...	...	0	0.4	Nil	0.21	—	33.13	58.92	Chupra.	...	...
...	...	...	...	...	...	...	...	...	...	...	0	0.6	Nil	0.17	—	29.41	38.33	Buxar	Shahabad	SOUTH BEHAR.
...	...	...	...	...	...	...	...	...	...	...	0	?	Nil	?	—	51.60	?	Dohree.	...	...
...	...	...	...	...	...	...	...	...	...	...	0	0.3	Nil	0.57	—	29.79	42.35	Bhuboonh.	...	...
...	...	...	...	...	...	...	...	...	...	...	0	0.5	Nil	0.24	—	54.79	41.72	Sasseram.	...	...
...	...	...	...	...	...	...	...	...	...	...	0	0.5	Nil	0.25	—	25.40	44.10	Arrah.	...	...
...	...	...	...	...	...	...	...	...	...	...	0	0.9	Nil	0.20	—	38.72	41.50	Aurangabad	Gya.	...
...	...	...	...	...	...	...	...	...	...	...	0	0.7	Nil	0.20	—	32.96	39.52	Gya.	...	...
...	...	...	...	...	...	...	...	...	...	...	0	0.4	Nil	0.16	—	22.02	40.28	Nowadah.	...	...
...	...	...	...	...	...	...	...	...	...	...	0	0.3	Nil	0.30	—	27.70	39.78	Jehanabad.	...	...
...	...	...	...	...	...	...	...	...	...	...	0	0.4	Nil	0.23	—	30.81	41.63	Patna	Patna.	...
...	...	...	...	...	...	...	...	...	...	...	0	0.3	Nil	0.15	—	36.25	40.61	Dinapore.	...	...
...	...	...	...	...	...	...	...	...	...	...	0	0.4	Nil	0.26	—	20.97	42.74	Behar.	...	...
...	...	...	...	...	...	...	...	...	...	...	0	0.4	Nil	0.24	—	33.28	41.53	Barrh.	...	...
...	...	...	...	...	...	...	...	...	...	...	0	0.4	Nil	0.33	—	25.46	40.19	Begooserai	Monghyr.	...
...	...	...	...	...	...	...	...	...	...	...	0	0.5	Nil	0.27	—	32.01	44.64	Monghyr.	...	...
...	...	...	...	...	...	...	...	...	...	...	0	0.4	Nil	0.08	—	36.01	43.51	Jamui.	...	...
...	...	...	...	...	...	...	...	...	...	...	0	0.4	Nil	0.23	—	37.48	46.46	Bhagulpore	South Bhagulpore.	...
...	...	...	...	...	...	...	...	...	...	...	0	0.4	Nil	0.14	—	28.14	45.05	Banka.	...	...
...	...	...	...	...	...	...	...	...	...	...	0	0.5	Nil	0.27	—	36.92	53.73	Rajmshah	Sonthal Pergunnahs.	...
...	...	...	...	...	...	...	...	...	...	...	0	0.3	Nil	0.10	—	27.46	46.29	Gadda.	...	...
...	...	...	...	...	...	...	...	...	...	...	0	0.5	Nil	0.12	—	37.92	54.33	Pakour.	...	...
...	...	...	...	...	...	...	...	...	...	...	0	1.3	Nil	0.21	—	32.70	56.61	Nya Dookka.	...	...
...	...	...	...	...	...	...	...	...	...	...	0	0.5	Nil	0.13	—	34.21	50.83	Deoghur.	...	...
...	...	...	...	...	...	...	...	...	...	...	0	0.9	Nil	0.36	—	49.02	48.65	Jamtara.	...	...
...	...	...	...	...	...	...	...	...	...	...	0	0.6	Nil	0.21	—	30.40	48.37	Pachamba	Hazaribagh	CHUTTA NAGPUR.
...	...	...	...	...	...	...	...	...	...	...	0	1.4	Nil	0.33	—	40.58	48.51	Hazaribagh.	...	...
...	...	...	...	...	...	...	...	...	...	...	0	1.8	Nil	0.32	—	37.36	47.80	Semtagurh.	...	...
...	...	...	...	...	...	...	...	...	...	...	0	1.7	Nil	0.58	—	37.83	47.83	Mahudi Hills.	...	...
...	...	...	...	...	...	...	...	...	...	...	0	?	Nil	?	—	54.54	?	Jhoomrahills	...	...
...	...	...	...	...	...	...	...	...	...	...	0	?	Nil	?	—	40.93	?	Lohardugga	Lohardugga.	...
...	...	...	...	...	...	...	...	...	...	...	0	1.3	Nil	0.29	—	52.54	49.07	Ranchi	...	...
...	...	...	...	...	...	...	...	...	...	...	0	0.9	Nil	0.49	—	39.45	45.53	Palamow.	...	...
...	...	...	...	...	...	...	...	...	...	...	0	1.4	Nil	0.23	—	46.62	56.16	Chyebassa	Singbhoom.	...
...	...	...	...	...	...	...	...	...	...	...	0	1.3	Nil	0.16	—	40.35	50.11	Purulia	Manbhoom.	...
...	...	...	...	...	...	...	...	...	...	...	0	0.8	Nil	0.12	—	31.43	49.20	Gobindpore.	...	...

*Table for October 1884.*

1'47	..	0'44	0'73	0'20	.....	...	...	...	...	8	7'6	6'97	4'82	2'32	61'95	59'59	Baripodah.
...	...	...	0'20	0'28	.....	...	...	...	...	4	5'2	1'68	2'16	0'05	37'56	47'48	Semtagurah.

blank. If some of the returns are wanting the corresponding spaces in the total rainfall columns are left blank.

JOHN ELIOT,  
*Meteorological Reporter to the  
Government of Bengal.*

### METEOROLOGICAL AND RAINFALL SUMMARY FOR THE MONTH OF NOVEMBER 1884.

*Normal Meteorological features of the month.*—The usual conditions of the meteorology in Bengal during November are simple; the north-east monsoon generally establishes itself in Bengal before the close of October, and thus November is characterized by rapidly falling temperatures, especially at night, clear if not cloudless skies, and little or no rain. Wind directions too are usually northerly with a more or less westerly element in them, and generally only light and gentle winds prevail. These northerly winds gradually drive back the south-west monsoon winds which had previously swept over the whole Bay, and cause them to curve inwards and to re-appear on the Madras coast as what is there called the north-east monsoon, which current gives heavy rain to the Madras Presidency. These conditions are, however, liable to be disturbed by two causes: the first of which is the formation in the Bay of Bengal of a cyclonic vortex, large or small as the case may be, generated by the condensation of large quantities of rain in the front of the gradually retreating south-west monsoon, which, although it has ceased to affect Bengal, continues to blow in the south of the Bay during a great part of November. The formation of such a vortex has always an influence on the weather in Bengal, and while, if it passes into Bengal, the whole weather conditions are completely changed, yet even if it passes into Burma or into Southern India the weather conditions are always more or less affected by it. It is, however, very rarely that a cyclone thus generated in the Bay passes into Bengal in November, and in those cases, where cyclones have thus passed into Bengal in this month, it is usually quite at its commencement, for during the latter part of this month cyclones are only formed in the south of the Bay and usually pass towards the Madras coast, striking it between Madras and Negapatam.

The second disturbing element in the weather of November is from an opposite cause, and is due to the occurrence of land storms generated, it is believed, usually in the Punjab, which storms drift eastwards through the North-West Provinces, and sometimes influence the weather in Behar and Bengal very considerably. It is, however, an extremely rare thing for such a storm to enter Bengal in November, though they sometimes do so in the later months of the north-east monsoon.

In the case of both disturbing causes, they produce clouded skies, increased humidity and temperature, and light to moderate rain, or if the locality is directly influenced by a cyclone, then of course heavy rain is received. Excepting, therefore, under these circumstances, weather during November is fine with passing clouds, and there is little, if any, rainfall. The average normal rainfall in the whole of the provinces, excepting the Chittagong, Backergunge and Noakholly districts of East Bengal, and the Cuttack and Pooree districts in Orissa, is not more than a few tenths of an inch, while in these exceptional districts the average rainfall varies only from one to three inches.

*Meteorological summary of the month.*—During the closing week of October a considerable burst of rainfall occurred over the greater part of Bengal; but on and after the 27th the north-east monsoon had spread itself over the whole province, giving northerly winds with fine weather, a falling temperature, and clear skies. South-west monsoon winds were, however, probably still blowing in the centre of the Bay, and weather became unsettled in the Bay on the 31st instant, with the result that a small cyclonic whirl was generated near the head of the Bay. This storm must have been comparatively small and local, though rather severe in character, for it gave little or no indication of its existence till it reached the Chittagong coast on the 1st of November, crossing the mouth of the Megna into the Noakholly and Commillah districts. It had, however, filled up and almost disappeared before the 2nd, and thus the observations gave little indication of its character. Very strong winds, however, accompanied it and blew at Chittagong from about noon to 5 P.M. of the 1st, during which time they did a considerable amount of damage. Heavy rain accompanied this storm, and was received in the districts through which it passed, as will be subsequently noticed. On the morning of the 3rd, north-east monsoon gradients were again established in the Bay, and the south-west monsoon current was deflected towards the Madras coast, reaching it as a north-easterly current, when it occasioned very heavy rain; Madras receiving nearly 23 inches and Negapatam 21½ inches in the period from the 3rd to the 10th of the month. The strong monsoon thus blowing on the Madras coast intensified the north-east monsoon winds in Bengal, and one of the principal features in the meteorology of the month has been the rapid and complete establishment of the cold weather conditions. Towards the middle of the month, however, rain ceased to fall for some days along the Madras coast, and it was shewn by the logs of several vessels received during the month that heavy rainfall was occurring over the sea area in the south of the Bay from the 11th to the 16th. This was at first accompanied in Bengal by a falling barometer, and the skies commenced to cloud over, while a few light showers fell in Orissa and East Bengal. The excessive rainfall at sea apparently accompanied or gave rise to a small cyclonic disturbance which passed across the Madras coast on the morning of the 21st, giving extremely heavy rain again in the districts through which it passed. The indraught to this storm, as it passed inland, again increased the intensity of the north-east monsoon conditions in Bengal, and with the continuance of the strong monsoon on the Madras coast, these conditions have held up to the close of the month, and the whole of the latter portion of it has again been characterised by the steadiness of the northerly and westerly winds, the absence of cloud, the comparatively low temperature, especially at nights, and the dryness of the air.



**Pressure**—Was at the commencement of the month decidedly below the normal owing to the approach of the small cyclonic storm noted above, and afterwards with the re-establishment of the north-east monsoon conditions it commenced to increase, and then oscillated within narrow limits about the normal until the second week, when a rapidly falling barometer gave rise to the formation of cloud in Bengal. From the 14th, however, pressure recovered itself, but only to decrease again during the formation of the small cyclone in the south of the Bay. When the storm had passed inland, pressure again increased and has been generally above the average up to the close of the month. The mean pressure of the month has thus been slightly above the normal, but this excess is to a great extent confined to Behar, where it equals 0.04", and to parts of South-West Bengal where it equals 0.02" nearly.

**Temperature**—Has been in all districts very considerably in defect. The average defect for the whole province has been more than 3°, and it varies from 5.4° at Purneah to 2.1° at Bankipore. The defect appears to be principally due to the unusually low night temperatures which have been experienced during this month, and which in some instances have averaged nearly seven degrees below the normal mean.

**Rainfall**—During the month has been practically confined to two short periods, and also to a few localities as mentioned above. The first period was with the passage inland of the small cyclonic storm on the 1st. This storm gave an average rainfall of 7.8 inches to the Noakholly district, to Backergunge 4.3 inches, to Chittagong 2.5 inches, and to Commillah 1.8 inches. The average rainfall received by East Bengal on the 1st instant was 2.2 inches, and in addition a few isolated showers were received at some of the eastern stations of South-West Bengal and in North Bengal. A few showers were again received on the 2nd instant at some of the stations in East Bengal and at one station in South-West Bengal. The next period during which any rain fell in Bengal was from the 11th to the 14th, where, as explained above, the barometer steadily fell for some days and caused the formation of clouds which resulted in the fall of slight showers of rain in East Bengal and in Orissa. Again on the 27th a slight shower was reported from Darjeeling, and on the 28th and 29th a few drops of rain fell at Kalimpong in the Darjeeling district. With these exceptions, the latter being of course very trifling, no rain whatever has been received in Bengal during November.

The rainfall has thus been very much below the average in all districts except East Bengal, where there has been a decided excess. East Bengal has received nearly three times its normal fall, North Bengal a quarter of the normal fall, South-West Bengal a sixth, and Orissa only a fortieth of the normal fall, while North and South Behar and Chutia Nagpur have received absolutely no rain.

The following table gives the summary of the temperature and rainfall data of each of the seven meteorological divisions of the Province for the month of November 1884:—

METEOROLOGICAL DIVISIONS.	TEMPERATURE.							RAINFALL.									
	Highest observed during month.	Lowest observed during month.	Averages for month.			Average mean of month above or below normal mean of month.	Of month.			Rainy days.			Since 15th May.				
			Of highest of each day.	Of lowest of each day.	Of mean for each day.		Average.	Normal average.	Variation.	Average number in month.	Normal average number in month.	Variation.	Average.	Normal average.			
Orissa	...	...	...	88.9	50.5	81.0	62.0	71.5	-3.1	0.03	1.27	-1.24	0.5	1.8	-1.3	51.79	54.08
South-West Bengal	...	...	...	86.5	52.2	80.7	60.7	70.7	-2.5	0.06	0.37	-0.31	0.2	1.0	-0.8	44.51	51.10
East Bengal	...	...	...	87.5	53.0	80.3	63.5	71.9	-2.4	2.29	0.85	+1.44	1.5	1.5	0	65.46	75.48
North Bengal	...	...	...	85.8	50.1	80.8	56.8	68.8	-	0.05	0.20	-0.15	0.1	0.5	-0.4	53.17	72.44
North Behar	...	...	...	85.6	46.8	79.5	55.3	67.4	-4.2	Nil	0.10	-0.10	0.0	0.3	-0.3	39.10	47.13
South Behar	...	...	...	87.9	45.1	79.0	56.0	67.5	-2.8	Nil	0.23	-0.23	0.0	0.5	-0.5	30.37	42.52
Chutia Nagpur	...	...	...	80.8*	46.4*	74.6*	53.2*	63.9*	-2.8*	Nil	0.36	-0.36	0.0	1.2	-1.2	36.49	47.31

\* Chyebassa not included.

METEOROLOGICAL OFFICE, BENGAL,

The 15th December 1884.

ALEXANDER PEDLER,

Offg. Meteorological Reporter to the Govt. of Bengal.

## Meteorological Report of the Province of Ben

METEOROLOGICAL DIVISION.	DISTRICT	Representative station.	STATION OBSERVATIONS.													Average humidity at 10 A. M.	Average cloud amount at 10 A. M. for week.
			AIR PRESSURE.			WIND.		TEMPERATURE.									
			Mean barometric height, 10 A. M.	Mean reduced to sea-level.	Variation from mean.	Prevailing direction.	Mean wind velocity.	Highest during week.	Lowest during week.	Mean maximum temperature.	Mean minimum temperature of week.	Mean daily temperature of week.	Variation from normal mean of week.	Mean 10 A. M. temperature.			
ORISSA.	Poorie ...	Gopalpore ...	30.095	30.145	—	NNW	27.4	74.7	53.0	73.6	55.1	64.3	—	69.6	67	2.0	
	False Point ...	False Point ...	30.135	30.157	+0.048	NE	113	77.4	49.0	75.8	51.1	63.4	—5.3	69.4	62	0.7	
	Cuttack ...	Cuttack ...	30.078	30.102	+0.023	Calm	17	81.8	51.9	80.7	53.8	67.3	—4.4	71.9	53	1.0	
	Balasore ...	Balasore ...	30.113	30.174	—	NNE	51	77.6	47.4	77.1	50.0	63.6	—	68.3	57	1.0	
SOUTH-WEST BENGAL.	South-West Midnapore ...	Saugor Island ...	30.121	30.148	+0.041	N	154	75.2	55.4	74.1	53.4	66.3	—3.1	68.5	71	1.6	
	South 24 Pergunnahs ...	Midnapore ...	30.011	30.108	—	N	93.1	78.3	48.7	76.9	51.8	64.3	—	70.4	53	2.3	
	24-Pergunnahs ...	Calcutta ...	30.130	30.152	+0.078	N & NNW	93	76.6	52.8	75.8	53.3	65.5	—2.9	68.1	61	0.7	
	Howrah ...	Howrah ...	30.052	30.156	+0.046	NW	44.1	77.4	53.3	76.8	54.4	65.6	—2.7	68.7	51	1.4	
	Hooghly ...	Burdwan ...	30.052	30.156	+0.046	NW	44.1	77.4	53.3	76.8	54.4	65.6	—2.7	68.7	51	1.4	
	Bankoora ...	Ranigunge ...	29.825	—	—	NW	116	77.3	48.9	77.0	51.8	64.4	—	67.0	52	2.3	
	Beerbhoom ...	Berhampore ...	30.066	30.138	+0.043	NW	52.3	77.4	52.4	76.1	54.2	65.2	—2.3	67.4	70	1.4	
	West Burdwan ...	.....	Observatory not started.														
	Nuddea ...	Jessore ...	30.101	30.136	+0.046	NW	48	78.2	51.5	77.4	53.4	65.4	—2.6	71.5	62	1.3	
	Jessore ...	Khoolna ...	30.027	30.120	+0.054	NE	34	81.1	52.7	77.6	55.9	66.8	—3.2	70.2	78	0.6	
EAST BENGAL.	Chittagong ...	Chittagong ...	30.027	30.120	+0.054	NE	34	81.1	52.7	77.6	55.9	66.8	—3.2	70.2	78	0.6	
	Chittagong Hill Tracts...	Demagiri ...	Observations not received.														
	Backergunge ...	Barrisal ...	30.064	Observations not taken by order of the Reporter.													
	Noakholly ...	Noakholly ...	30.054	30.099	—	Calm	53.9	81.0	51.5	77.6	53.1	65.4	—	71.5	63	0.6	
	Furzedpore ...	Furzedpore ...	30.032	—	—	N & NE	36	76.5	53.0	74.9	53.6	64.3	—2.8	71.7	59	1.6	
	Dacca ...	Dacca ...	30.101	30.123	+0.069	N	17	78.8	54.1	77.8	54.5	66.1	—	72.3	66	0.3	
	Commillah ...	Commillah ...	30.082	30.119	—	NW	16.6	81.4	51.1	79.0	52.4	65.7	—	71.4	60	0	
	Mymensingh ...	Mymensingh ...	30.038	—	—	NNE	59	78.6	46.1	78.0	49.7	63.9	—	74.0	66	3.4	
	Bogra and Pubna ...	Serajgunge ...	30.087	30.135	—	N	28.8	77.0	59.1	75.9	52.2	64.1	—	68.5	71	1.7	
	Bogra ...	Bogra ...	—	—	—	Calm	16.6	77.8	51.2	76.9	57.4	67.2	—	68.1	67	0.7	
NORTH BENGAL.	Rajshahye ...	Rampore Beaulah ...	30.054	30.130	—	NNW, NNE	25.5	72.1	47.7	70.5	49.4	60.0	—	70.7	59	0.6	
	Dinapore ...	Dinapore ...	30.001	30.128	—	NNE	60.3	77.6	48.5	77.2	49.3	63.3	—	68.0	66	0	
	Rungpore ...	Rungpore ...	30.018	30.148	—	NE	50	77.2	47.6	76.7	49.6	63.2	—	69.0	69	2.4	
	Julpigoree ...	Julpigoree ...	29.858	30.156	—	E & ESE	83.5	78.1	49.1	77.3	51.2	64.3	—	72.4	70	0.6	
	Cooch Behar ...	Darjeeling ...	23.114	—	—	Calm & E	20.7	56.0	33.1	51.8	35.3	43.6	—	47.2	54	0	
	Darjeeling Hill Districts	Darjeeling ...	30.029	30.102	+0.077	Calm	5.3	79.2	44.8	75.3	46.7	62.5	—2.5	65.8	63	0.1	
NORTH BENGAL.	Purneah ...	Purneah ...	30.029	30.102	+0.077	Calm	5.3	79.2	44.8	75.3	46.7	62.5	—2.5	65.8	63	0.1	
	North Bhagulpore ...	Mozufferpore ...	30.014	30.191	+0.101	WSW	49	74.9	61.2	74.5	52.9	63.7	—1.6	65.7	60	0	
	Mozufferpore ...	Durbhunga ...	30.014	30.191	+0.101	WSW	49	74.9	61.2	74.5	52.9	63.7	—1.6	65.7	60	0	
	Durbhunga ...	Chumparan ...	29.929	30.168	—	NW	87.0	76.5	44.1	75.8	45.3	60.6	—	66.9	60	0	
	Chumparan ...	Saran ...	29.978	—	—	W	11.9	75.0	47.5	74.2	49.0	61.6	—	67.6	58	0	
	Saran ...	Dehree ...	29.818	30.103	—	SSW	139.7	74.6	50.0	73.1	51.3	63.2	—	64.4	59	0	
SOUTH BENGAL.	Shahabad ...	Buxar ...	29.927	30.181	—	WNW	57.5	74.4	45.4	73.8	48.0	60.9	—	67.5	49	0	
	Buxar ...	Arrah ...	29.943	30.150	—	WNW	12.8	75.3	43.0	73.6	45.9	59.8	—	65.0	53	0	
	Arrah ...	Gya ...	29.779	30.176	?	Calm	16.6	76.3	42.1	74.6	44.2	59.4	—5.2	67.9	46	0	
	Gya ...	Patna ...	30.016	30.210	+0.074	W	40.1	74.5	47.6	73.6	50.1	61.9	—1.3	65.2	60	0.3	
	Patna ...	Bankipore ...	29.992	30.162	—	W.NW	28	75.0	46.0	74.0	50.0	62.0	—	67.8	61	0.1	
	Bankipore ...	Bhagulpore ...	29.992	30.162	—	W.NW	28	75.0	46.0	74.0	50.0	62.0	—	67.8	61	0.1	
CHOTA NAGPORE.	Sonthal Pergunnahs ...	Doonah ...	29.640	—	—	NNW	84.7	76.0	47.9	74.7	51.0	62.9	—	65.6	74	0	
	Hazaribagh ...	Hazaribagh ...	28.089	30.174	+0.043	NNE	93.2	72.9	46.3	70.4	48.8	59.6	—2.5	64.0	48	0.7	
	Lohardunga ...	Ranchee ...	27.938	30.139	—	—	—	71.3	46.4	69.2	48.0	58.6	—	63.5	48	0.4	
	Lohardunga ...	Manbhoom ...	27.938	30.139	—	—	—	71.3	46.4	69.2	48.0	58.6	—	63.5	48	0.4	
Singbhoom ...	Chyebassa ...	29.354	—	—	NNE	136.7	—	46.2	—	48.0	—	—	68.9	46	1.3		

\* Mean for six days.

**Explanation.—Summary.**—The normal means of air pressure and temperature are the arithmetical averages or means of the readings during the same period. The humidity of the atmosphere is expressed as a percentage, saturated air being represented by 100. A clear sky is denoted by 0 and an overcast sky by 100. The normal means of rainfall are the numerical means or averages of the rainfall in that district determined from the returns sent in by the sub-divisions from the district (i.e., the total rainfall at the sub-divisional stations in the district sending in returns divided by the number of stations. A rain



for the week ending Friday, the 12th of December 1884.

Rainfall of week at observing stations.	DISTRICT OBSERVATIONS.										Representative station.	DISTRICT.	METEOROLOGICAL DIVISION.
	RAINFALL.												
	Of week.		Since 1st of month.			Since 15th May.			Average number of rainy days.	Normal number of rainy days.			
	Mean for district.	Normal mean.	Mean for district.	Normal mean.	Variation.	Mean for district.	Normal mean.	Variation.					
Nil	—	—	—	—	—	—	—	—	—	—	Gopalpore ...	Pooree ...	ORISSA.
Nil	Nil	0'33	Nil	0'55	-0'55	49'49	57'07	-8'18	0'0	0'6	False Point ...	Cuttack ...	
Nil	Nil	0'31	Nil	0'44	-0'44	47'05	52'06	-5'01	0'0	0'6	Cuttack ...	Balasore ...	
Nil	Nil	0'16	Nil	0'23	-0'23	56'08	53'57	+2'51	0'0	0'3	Balasore ...	South-West Midnapore ...	
Nil	Nil	0'13	Nil	0'31	-0'31	69'59	61'91	+7'68	0'0	0'3	Saugor Island ...	South 24-Pergunnahs ...	SOUTH-WEST BENGAL.
Nil	Nil	0'07	Nil	0'20	-0'20	43'01	50'01	-7'00	0'0	0'4	Midnapore ...	Midnapore ...	
Nil	Nil	0'11	Nil	0'27	-0'27	40'03	51'05	-2'02	0'0	0'4	Calcutta ...	24-Pergunnahs ...	
Nil	Nil	0'06	Nil	0'15	-0'15	35'92	46'33	-10'41	0'0	0'2	Burdwan ...	Howrah ...	
Nil	Nil	0'03	Nil	0'19	-0'19	38'94	51'16	-12'22	0'0	0'3	Ranigunge ...	Hooghly ...	SOUTH-WEST BENGAL.
Nil	Nil	0'06	Nil	0'15	-0'15	35'42	49'74	-14'32	0'0	0'4	Berhampore ...	Burdwan ...	
Nil	Nil	0'01	Nil	0'14	-0'14	38'42	49'46	-13'04	0'0	0'1	.....	Bankoora ...	
Nil	Nil	0'05	Nil	0'26	-0'26	53'11	53'18	-0'07	0'0	0'2	Jessore ...	Beerbhoom ...	
Nil	Nil	0'30	Nil	0'55	-0'55	106'64	112'25	-5'61	0'0	0'4	Chittagong ...	West Burdwan ...	EAST BENGAL.
Nil	Nil	0'56	Nil	0'64	-0'64	62'06	86'37	-23'71	0'0	0'4	Demagiri ...	Moorshedabad ...	
Nil	Nil	0'17	Nil	0'49	-0'49	83'11	76'74	+6'37	0'0	0'4	Barrisal ...	Nuddea ...	
Nil	Nil	0'56	Nil	0'99	-0'99	95'44	110'94	-15'50	0'0	0'5	Noakholly ...	Jessore ...	
Nil	Nil	0'02	Nil	0'12	-0'12	43'88	56'02	-12'14	0'0	0'2	Furreedpore ...	Khoolna ...	NORTH BENGAL.
Nil	Nil	0'09	Nil	0'21	-0'21	47'81	58'85	-11'04	0'0	0'4	Dacca ...	Chittagong ...	
Nil	Nil	0'18	Nil	0'39	-0'39	64'15	71'30	-7'15	0'0	0'5	Commillah ...	Chittagong Hill Tracts ...	
Nil	Nil	0'07	Nil	0'15	-0'15	46'04	68'65	-22'61	0'0	0'4	Mymensingh ...	Backergunge ...	
Nil	Nil	0'06	Nil	0'15	-0'15	37'73	55'90	-18'17	0'0	0'3	Serajgunge ...	Noakholly ...	NORTH BENGAL.
Nil	Nil	0'03	Nil	0'13	-0'13	34'66	53'24	-18'58	0'0	0'2	Bogra ...	Furreedpore ...	
Nil	Nil	0'08	Nil	0'18	-0'18	38'74	56'56	-17'82	0'0	0'2	Rampore Beaulah ...	Bogra and Pubna ...	
Nil	Nil	0'08	Nil	0'11	-0'11	49'70	75'51	-25'81	0'0	0'1	Dinapore ...	Rajshahye ...	
Nil	Nil	0'14	Nil	0'14	-0'14	95'25	113'98	-18'73	0'0	0'2	Rungpore ...	Dinapore ...	NORTH BENGAL.
Nil	Nil	0'07	Nil	0'09	-0'09	113'61	152'16	-38'55	0'0	0'1	Julpigoree ...	Rungpore ...	
Nil	Nil	0'06	Nil	0'06	-0'06	46'18	57'65	-11'47	0'0	0'2	Darjeeling ...	Julpigoree ...	
Nil	Nil	0'01	Nil	0'02	-0'02	34'69	42'15	-7'46	0'0	0'1	Cooch Behar ...	Darjeeling Hill Districts ...	
Nil	Nil	0'07	Nil	0'09	-0'09	113'61	152'16	-38'55	0'0	0'1	Darjeeling ...	Purneah ...	NORTH BENGAL.
Nil	Nil	0'06	Nil	0'06	-0'06	46'18	57'65	-11'47	0'0	0'2	Purneah ...	Purneah ...	
Nil	Nil	0'01	Nil	0'02	-0'02	34'69	42'15	-7'46	0'0	0'1	Mozufferpore ...	North Bhagulpore ...	
Nil	Nil	0'01	Nil	0'02	-0'02	41'79	43'95	-2'16	0'0	0'1	Darbhanga ...	Mozufferpore ...	
Nil	Nil	0'01	Nil	0'01	-0'01	30'52	40'78	-10'26	0'0	0'1	Motihari ...	Durbhunga ...	NORTH BENGAL.
Nil	Nil	0'01	Nil	0'01	-0'01	29'10	39'07	-9'97	0'0	0'1	Chumpra ...	Chumpra ...	
Nil	Nil	0'01	Nil	0'01	-0'01	27'74	39'62	-11'88	0'0	0'0	Dehree ...	Chumpra ...	
Nil	Nil	0'01	Nil	0'01	-0'01	29'00	40'34	-11'34	0'0	0'1	Buxar ...	Chumpra ...	
Nil	Nil	0'01	Nil	0'02	-0'02	31'05	41'90	-10'85	0'0	0'1	Arrah ...	Sarun ...	NORTH BENGAL.
Nil	Nil	0'01	Nil	0'08	-0'08	33'44	48'67	-15'23	0'0	0'1	Shahabad ...	Shahabad ...	
Nil	Nil	0'03	Nil	0'07	-0'07	34'10	46'60	-12'50	0'0	0'2	Gya ...	Gya ...	
Nil	Nil	0'06	Nil	0'11	-0'11	36'98	47'20	-10'22	0'0	0'3	Bankipore ...	Patna ...	
Nil	Nil	0'11	Nil	0'24	-0'24	44'07	51'20	-7'13	0'0	0'6	Bhagulpore ...	South Bhagulpore ...	SOUTH BENGAL.
Nil	Nil	0'01	Nil	0'02	-0'02	31'05	41'90	-10'85	0'0	0'1	Monghyr ...	Monghyr ...	
Nil	Nil	0'04	Nil	0'08	-0'08	33'44	48'67	-15'23	0'0	0'1	Doomka ...	Sonthal Pergunnahs ...	
Nil	Nil	0'03	Nil	0'07	-0'07	34'10	46'60	-12'50	0'0	0'2	Hazaribagh ...	Hazaribagh ...	
Nil	Nil	0'06	Nil	0'11	-0'11	36'98	47'20	-10'22	0'0	0'3	Ranclee ...	Lohardugga ...	CHUTIA NAG-POOR.
Nil	Nil	0'11	Nil	0'24	-0'24	44'07	51'20	-7'13	0'0	0'6	Chyebassa ...	Manbhoom ...	

period for the past ten years. The variations are negative when the mean for the week is less than the corresponding normal mean, and positive when greater. by 10. The number denoting cloud amount represents the part of the sky covered, the whole sky being denoted by 10. Under the head "district observations" for the period in question during the past 12 years. The means for the "district" are the numerical averages of the rainfall returns received day is one on which at least an hundredth of an inch fell.

## Statement of Rainfall in Bengal for the week ending Friday (6 p.m.), the 12th December 1884.

Meteorological division.	District.	Station.	RAINFALL.							TOTAL.		Total rain-fall from 1st to 12th December 1884.	Average total rain-fall from 1st to 12th December.	Total rain-fall since 15th May 1884.	Average rainfall from 15th May to date.
			Saturday, 6th December.	Sunday, 7th December.	Monday, 8th December.	Tuesday, 9th December.	Wednesday, 10th December.	Thursday, 11th December.	Friday, 12th December.	Number of rainy days.	Rainfall week.				
ORISSA	Pooree	Pooree	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.50	58.83	52.90
		Khurdah	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.34	50.17	58.67
		Banpur	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.57	37.01	51.90
		False Point	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.79	51.94	67.23
		Hookitola	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	?	36.76	?
	Cuttack	Jagatsingapore	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.25	51.40	46.91
		Banki	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	?	45.12	?
		Cuttack	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.25	50.63	56.76
		Kendrapara	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.50	40.68	53.68
	Balasore	Jajpore	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.76	44.92	53.65
		Chandbali	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.63	50.96	54.26
		Bhuddruck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.22	58.20	51.14
		Sorah	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.11	45.37	51.97
		Balasore	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.36	67.59	57.32
SOUTH-WEST BENGAL.	Midnapore	Jellesore	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.03	50.53	53.37
		Baripodah	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.05	54.81	53.36
		Contai	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.37	60.85	62.38
		Saugor Island	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.33	75.64	65.36
	24-Pergunnahs	Tumlook	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.25	45.00	50.26
		Midnapore	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.11	40.15	47.23
		Ghattal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.24	37.88	52.50
		Diamond Har- bour.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.22	66.29	58.07
		Alipore Jail	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.33	57.88	54.26
		Barrackpore	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.29	48.80	48.16
		Dum-Dum	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.27	53.48	50.75
	Howrah	Baraset	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.27	46.33	48.84
		Huseerhat	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.24	50.32	53.14
		Howrah	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.31	46.63	51.23
	Hooghly	Mohesreka (Ooloberiah.)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.29	49.40	52.19
		Serampore	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.27	56.75	49.11
		Hooghly	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.27	39.23	47.38
	Burdwan	Jehanabad	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.16	34.42	54.71
		Culina	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.22	36.70	43.57
		Burdwan	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.19	35.32	47.87
	Bankoora	Cutwa	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.05	35.73	47.29
		Raneegunge	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.07	40.63	46.70
		Bankoora	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.14	54.36	50.10
	Beerbhoom	Indas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	?	?	?
		Bishenpore	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.27	33.48	49.26
		Kotulpur	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	?	?	?
		Maliara	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.22	34.53	48.41
		Onda	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	?	?	?
	Nuddea	Khatra	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.39	46.25	56.00
		Br. Soory	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.16	41.66	53.59
		Hetampore	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.15	52.13	52.13
		Songong	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.29	35.90	51.51
		Ranaghat	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.18	38.93	46.65
	Khoolna	Kishnaghat	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.03	29.72	46.27
		Choodanga	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.10	37.44	51.24
		Meherpore	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.11	34.72	47.03
		Kooshtea	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.11	41.81	54.24
		Satkira	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.40	62.47	53.56
	Jessore	Bagirhat	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.32	65.14	60.20
		Khoolna	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.34	64.94	54.62
		Narail	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.23	31.91	48.93
		Jessore	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.20	51.75	53.17
		Jhenidah	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.19	48.80	53.70
	Moorshedabad	Magoorah	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.15	44.18	48.51
		Kandi	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.18	35.63	50.96
		Rampore Haut	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.20	35.12	50.67
		Berhampore	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.14	32.64	51.44
		Lalbagh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.21	34.95	49.40
	Cox's Bazar	Azimungo	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.12	39.94	49.83
		Jungipore	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.10	32.42	47.48
		Lalgaia	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.12	39.26	49.54
		Cox's Bazar	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.30	128.88	131.96
		Chittagong	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.31	84.38	123.53
	Chittagong Hill Tracts.	Rangamati	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.64	62.66	86.37
		Raicha	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	?	82.40	?
		Agartola	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.43	54.78	64.07
	Backergunge	Patuakhally	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.56	84.20	88.30
		Perozepore	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.35	81.28	68.85
		Burrial	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.36	79.32	56.48
	Nonkholly	Bhola	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.71	87.00	83.32
		Noakholly		0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.70	97.64	110.50
		Fenny		0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	1.29	98.44	111.24
	Furzedpore	Madaripore	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.16	46.31	50.00
		Furzedpore	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.11	47.47	58.06
		Gosaiundo	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.10	57.87	54.03
	Dacca	Munshigunge	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.34	56.74	72.07
		Dacca	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.18	42.84	59.53
		Naraingunge	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	?	40.84	?
	Comilla	Manicgunge	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.12	43.84	49.30



## Statement of Rainfall in Bengal for the week ending Friday (6 p.m.), the 12th December 1884—concluded.

Meteorological division.	District.	Station.	RAINFALL.							TOTAL.		Total rainfall from 1st to 12th December 1884.	Average total rainfall from 1st to 12th December.	Total rainfall since 15th May 1884.	Average rainfall from 15th May to date.
			Saturday, 6th December.	Sunday, 7th December.	Monday, 8th December.	Tuesday, 9th December.	Wednesday, 10th December.	Thursday, 11th December.	Friday, 12th December.	Number of rainy days.	Rainfall week.				
NORTH BENGAL	Pubna	Pubna	.....	.....	.....	.....	.....	.....	.....	Nil	Nil	Nil	0'10	42'34	54'06
		Serajunge	.....	.....	.....	.....	.....	.....	.....	Nil	Nil	Nil	0'10	40'13	52'49
	Bogra	Sherpore	.....	.....	.....	.....	.....	.....	.....	Nil	Nil	Nil	0'20	37'23	61'22
		Nowkhilla	.....	.....	.....	.....	.....	.....	.....	Nil	Nil	Nil	0'16	58'10	55'23
		Bogra	.....	.....	.....	.....	.....	.....	.....	Nil	Nil	Nil	0'09	37'08	61'23
		Panchbibi	.....	.....	.....	.....	.....	.....	.....	Nil	Nil	Nil	0'22	39'07	55'46
	Rajahmundry	Beaulah	.....	.....	.....	.....	.....	.....	.....	Nil	Nil	Nil	0'11	33'09	55'68
		Nattore	.....	.....	.....	.....	.....	.....	.....	Nil	Nil	Nil	0'13	36'16	55'54
		Nowgong	.....	.....	.....	.....	.....	.....	.....	Nil	Nil	Nil	?	43'88	?
	Maldah	Maldah	.....	.....	.....	.....	.....	.....	.....	Nil	Nil	Nil	0'16	33'81	50'60
	Dinapore	Mohadebore	.....	.....	.....	.....	.....	.....	.....	Nil	Nil	Nil	0'24	33'08	58'08
		Charancon	.....	.....	.....	.....	.....	.....	.....	Nil	Nil	Nil	0'23	44'01	49'88
		Raigunge	.....	.....	.....	.....	.....	.....	.....	Nil	Nil	Nil	0'17	42'29	54'68
		Dinapore	.....	.....	.....	.....	.....	.....	.....	Nil	Nil	Nil	0'07	34'08	63'00
	Rungpore	Baloorghat	.....	.....	.....	.....	.....	.....	.....	Nil	Nil	Nil	?	37'72	?
		Bhawanigunge (Gyabanda)	.....	.....	.....	.....	.....	.....	.....	Nil	Nil	Nil	0'12	43'37	62'83
		Rungpore	.....	.....	.....	.....	.....	.....	.....	Nil	Nil	Nil	0'07	56'57	74'38
		Kurigram	.....	.....	.....	.....	.....	.....	.....	Nil	Nil	Nil	0'04	48'87	74'24
	Julpigore	Bagdogra (Nilphamari)	.....	.....	.....	.....	.....	.....	.....	Nil	Nil	Nil	0'20	48'09	90'69
		Julpigore	.....	.....	.....	.....	.....	.....	.....	Nil	Nil	Nil	0'06	101'56	116'02
	Cooch Behar	Dinhatta	.....	.....	.....	.....	.....	.....	.....	Nil	Nil	Nil	0'11	84'38	98'91
		Cooch Behar	.....	.....	.....	.....	.....	.....	.....	Nil	Nil	Nil	0'08	119'03	118'44
		Mickligunge	.....	.....	.....	.....	.....	.....	.....	Nil	Nil	Nil	0'28	84'74	110'62
		Matabhanga	.....	.....	.....	.....	.....	.....	.....	Nil	Nil	Nil	0'19	86'55	126'01
	Darjeeling Hill.	Buxa	.....	.....	.....	.....	.....	.....	.....	Nil	Nil	Nil	0'05	131'09	106'17
		Siliguri	.....	.....	.....	.....	.....	.....	.....	Nil	Nil	Nil	?	85'43	108'08
		Kalimpong	0'07	.....	.....	.....	.....	.....	.....	Nil	Nil	Nil	?	64'52	?
NORTH BENGAL	Purneah	Kissengunge	.....	.....	.....	.....	.....	.....	.....	Nil	Nil	Nil	0'07	63'75	67'00
		Arrareah	.....	.....	.....	.....	.....	.....	.....	Nil	Nil	Nil	0'05	51'02	62'78
		Purneah	.....	.....	.....	.....	.....	.....	.....	Nil	Nil	Nil	0'14	46'39	60'78
	North Bhagulpore.	Maddapore	.....	.....	.....	.....	.....	.....	.....	Nil	Nil	Nil	0'01	37'86	49'35
		Scopool	.....	.....	.....	.....	.....	.....	.....	Nil	Nil	Nil	0'04	29'29	48'31
	Durbhunga	Tajpore	.....	.....	.....	.....	.....	.....	.....	Nil	Nil	Nil	0'01	33'77	40'24
		Durbhunga	.....	.....	.....	.....	.....	.....	.....	Nil	Nil	Nil	0'02	30'33	44'24
		Madhubani	.....	.....	.....	.....	.....	.....	.....	Nil	Nil	Nil	0'01	40'62	43'00
	Mozufferpore	Sitamari	.....	.....	.....	.....	.....	.....	.....	Nil	Nil	Nil	0'02	36'03	39'76
		Mozufferpore	.....	.....	.....	.....	.....	.....	.....	Nil	Nil	Nil	?	32'43	44'43
		Hajipore	.....	.....	.....	.....	.....	.....	.....	Nil	Nil	Nil	0'03	34'08	41'15
	Chumparun	Motihari	.....	.....	.....	.....	.....	.....	.....	Nil	Nil	Nil	0'03	41'51	41'16
		Bettiah	.....	.....	.....	.....	.....	.....	.....	Nil	Nil	Nil	0'02	44'53	47'46
	Sarun	Gopalgunge	.....	.....	.....	.....	.....	.....	.....	Nil	Nil	Nil	Nil	39'36	43'76
		Sewan	.....	.....	.....	.....	.....	.....	.....	Nil	Nil	Nil	0'01	28'75	43'33
		Chuprah	.....	.....	.....	.....	.....	.....	.....	Nil	Nil	Nil	0'01	32'28	38'43
NORTH BENGAL	Shahabad	Buxar	.....	.....	.....	.....	.....	.....	.....	Nil	Nil	Nil	Nil	28'79	37'45
		Dehree	.....	.....	.....	.....	.....	.....	.....	Nil	Nil	Nil	?	31'27	?
		Bhuboonah	.....	.....	.....	.....	.....	.....	.....	Nil	Nil	Nil	Nil	28'04	40'02
		Sasseram	.....	.....	.....	.....	.....	.....	.....	Nil	Nil	Nil	0'01	34'64	40'15
	Gya	Arrah	.....	.....	.....	.....	.....	.....	.....	Nil	Nil	Nil	0'02	24'21	38'00
		Aurungabad	.....	.....	.....	.....	.....	.....	.....	Nil	Nil	Nil	Nil	38'23	40'11
		Gya	.....	.....	.....	.....	.....	.....	.....	Nil	Nil	Nil	Nil	23'06	40'05
		Nowadah	.....	.....	.....	.....	.....	.....	.....	Nil	Nil	Nil	0'01	21'52	38'88
	Patna	Jehanabad	.....	.....	.....	.....	.....	.....	.....	Nil	Nil	Nil	Nil	27'20	38'70
		Patna	.....	.....	.....	.....	.....	.....	.....	Nil	Nil	Nil	0'01	29'84	40'68
		Dinapore	.....	.....	.....	.....	.....	.....	.....	Nil	Nil	Nil	0'01	36'25	39'07
		Behar	.....	.....	.....	.....	.....	.....	.....	Nil	Nil	Nil	0'01	18'05	41'97
	Monghyr	Barh	.....	.....	.....	.....	.....	.....	.....	Nil	Nil	Nil	Nil	31'83	39'53
		Begoeserai	.....	.....	.....	.....	.....	.....	.....	Nil	Nil	Nil	0'01	25'30	38'70
		Monkhyr	.....	.....	.....	.....	.....	.....	.....	Nil	Nil	Nil	Nil	31'39	46'19
		Jamui	.....	.....	.....	.....	.....	.....	.....	Nil	Nil	Nil	0'01	35'70	41'51
	South Bhagulpore.	Bhagulpore	.....	.....	.....	.....	.....	.....	.....	Nil	Nil	Nil	0'03	39'67	43'60
		Barka	.....	.....	.....	.....	.....	.....	.....	Nil	Nil	Nil	0'05	25'68	39'67
	Sonthal Pergunnahs.	Rajmehal	.....	.....	.....	.....	.....	.....	.....	Nil	Nil	Nil	0'05	32'47	43'53
		Gouda	.....	.....	.....	.....	.....	.....	.....	Nil	Nil	Nil	0'10	25'11	45'46
		Pakour	.....	.....	.....	.....	.....	.....	.....	Nil	Nil	Nil	0'08	34'02	51'84
		Nya Doonka	.....	.....	.....	.....	.....	.....	.....	Nil	Nil	Nil	0'10	29'30	53'03
		Deognur	.....	.....	.....	.....	.....	.....	.....	Nil	Nil	Nil	0'02	31'11	48'55
		Jamui	.....	.....	.....	.....	.....	.....	.....	Nil	Nil	Nil	0'10	47'13	45'35
CENTRAL AND WEST BENGAL	Hazariabagh	Pachamba	.....	.....	.....	.....	.....	.....	.....	Nil	Nil	Nil	0'06	25'55	45'78
		Hazariabagh	.....	.....	.....	.....	.....	.....	.....	Nil	Nil	Nil	0'07	38'69	46'83
		Semugurh	.....	.....	.....	.....	.....	.....	.....	Nil	Nil	Nil	0'07	33'80	45'63
		Manudi Hills	.....	.....	.....	.....	.....	.....	.....	Nil	Nil	Nil	0'08	35'44	48'08
	Lohardugga	Lohardugga	.....	.....	.....	.....	.....	.....	.....	Nil	Nil	Nil	?	40'44	?
		Kanchi	.....	.....	.....	.....	.....	.....	.....	Nil	Nil	Nil	0'11	40'01	51'02
		Palamow	.....	.....	.....	.....	.....	.....	.....	Nil	Nil	Nil	0'05	29'67	41'06
	Singbhoom	Chyebassa	.....	.....	.....	.....	.....	.....	.....	Nil	Nil	Nil	0'24	44'07	51'20
	Manbhoom	Purulia	.....	.....	.....	.....	.....	.....	.....	Nil	Nil	Nil	0'14	38'25	49'32
		Gobinapore	.....	.....	.....	.....	.....	.....	.....	Nil	Nil	Nil	0'12	30'15	46'45

Explanation.—..... Indicates that no rain has fallen. If the return for any day has not been received, the corresponding space is left blank. If any of the returns are wanting, the corresponding spaces in the total rainfall columns are left blank.

CALCUTTA, the 15th December 1884.

**SUMMARY OF THE METEOROLOGICAL AND RAINFALL OBSERVATIONS  
TAKEN IN BENGAL DURING THE WEEK ENDING THE 12TH DECEMBER 1884.**

The past week has again been characterized by unusually high pressure and low temperature over the whole Province, while at no single station has any rain been reported. These conditions are similar to those which have obtained in Bengal since the establishment of the present north-east monsoon.

Pressure had been high for the greater part of the previous week, and it increased steadily up to the 7th, when a fall set in, in most cases extending over two or three days, and this was followed by a rebound, which at the close of the week left the barometer higher even than it had been at the beginning of the week. These changes were of course only of the usual oscillatory nature, and were of no practical significance as to alteration of weather conditions. Thus the pressure for the week has been in all districts considerably above the normal. Behar still continues to be an area of relatively excess pressure, and at Durbhunga the mean excess for the week was 0.101 inch; in other districts the excess varied from 0.078 inch at Calcutta to 0.041 inch at Saugor Island.

This accumulation of pressure has probably been due to the continuance of the unusually low temperature which has been noticed in the previous weekly reports, and again this week it has to be recorded that in every district temperature has been below the average by amounts varying between 5° and 6° at False Point and Gya to between 1° and 2° at Bankipore and Durbhunga. The average defect of temperature has been greatest in the Orissa Division, where it amounts to nearly 5°; it was 3° and upwards in the South Behar and East Bengal districts, and between 2° and 3° in South-West Bengal, Chutia Nagpur, and North Behar districts. The night temperatures were again particularly low for the time of year, as may be seen from the following table, which gives the normal and actual mean maximum and minimum temperatures at seven stations, and which therefore illustrates clearly the temperature variations of the past week:—

	MAXIMUM DAY TEMPERATURE.		Deficiency.	MINIMUM NIGHT TEMPERATURE.		Deficiency.
	Normal average for week.	Actual average for week.		Normal average for week.	Actual average for week.	
Cuttack ... ..	82.9	80.7	2.2	60.6	53.8	6.8
Calcutta ... ..	77.1	75.8	1.3	59.6	55.3	4.3
Burdwan ... ..	78.3	76.8	1.5	58.2	54.4	3.8
Jessore ... ..	79.2	77.4	1.8	56.7	53.4	3.3
Dacca ... ..	79.2	77.8	1.4	58.6	54.5	4.1
Patna ... ..	75.5	73.6	1.9	50.8	50.1	0.7
Hazaribagh ... ..	72.7	70.4	2.3	51.5	48.8	2.7

The following table gives the summary of the temperature and rainfall data of each of the seven meteorological divisions of the Province for the week ending Friday, the 12th December 1884:—

METEOROLOGICAL DIVISIONS.	TEMPERATURE.							RAINFALL.								
	Highest observed during week.	Lowest observed during week.	Averages for week.			Average mean of week above or below normal mean of week.	Of week.			Rainy days.			Since 1st of month.		Since 15th May.	
			Of highest of each day.	Of lowest of each day.	Of mean for each day.		Average.	Normal average.	Variation.	Average number in week.	Normal average number in week.	Variation.	Average.	Normal average.	Average.	Normal average.
Orissa ... ..	81.8	47.4	76.8	53.5	64.7	-4.9	Nil	0.25	-0.25	0.0	0.5	-0.5	Nil	0.38	51.79	54.46
South-West Bengal ... ..	79.3	48.7	76.3	54.2	65.2	-2.7	Nil	0.06	-0.06	0.0	0.3	-0.3	Nil	0.21	44.51	51.39
East Bengal ... ..	81.4*	46.1*	77.5*	53.2*	65.4*	-3.0*	Nil	0.18	-0.18	0.0	0.4	-0.4	Nil	0.39	65.46	76.87
North Bengal ... ..	78.1	47.6	75.8	51.5	63.7	-1.1	Nil	0.08	-0.08	0.0	0.2	-0.2	Nil	0.14	53.17	72.58
North Behar ... ..	79.2	44.1	75.7	48.5	62.1	-2.1	Nil	0.03	-0.03	0.0	0.1	-0.1	Nil	0.03	39.10	47.16
South Behar ... ..	76.3	42.1	75.9	48.6	61.3	-3.3	Nil	0.01	-0.01	0.0	0.1	-0.1	Nil	0.03	30.37	42.55
Chutia Nagpur ... ..	72.9†	46.3†	69.8†	48.4†	59.1†	-2.5†	Nil	0.05	-0.05	0.0	0.3	-0.3	Nil	0.10	36.49	47.41

\* Barisal not included.

† Chyebassa not included.

METEOROLOGICAL OFFICE, BENGAL;

ALEXANDER PEDLER,

The 12th December 1884.

Offg. Meteorological Reporter to the Govt. of Bengal.



Results of the Thermometrical Observations taken at the Meteorological Office,  
Chowringhee, from 7th to 13th December 1884.

MONTH.	Date.	TEMPERATURE.				Mean wet bulb.	HYGROMETRY.			Rain.
		Mean.	Maximum.	Range.	Minimum.		Vapour tension.	Dew point.	Humidity.	
		°	°	°	°	°	Inches.	°	%	Inches.
December	7th	66.1	76.9	20.2	56.7	59.3	.416	53.8	65	Nil
"	8th	64.8	76.4	22.5	53.9	57.9	.390	52.1	63	"
"	9th	63.8	75.9	23.6	52.3	58.8	.431	54.8	73	"
"	10th	64.6	76.4	23.1	53.3	60.2	.464	56.7	76	"
"	11th	66.9	76.9	20.0	56.9	62.2	.498	58.8	75	"
"	12th	66.8	77.4	20.5	56.9	62.1	.497	58.8	75	"
"	13th	66.3	77.8	21.9	55.9	61.4	.480	57.8	74	"

The mean temperature of the seven days ... 65.6

The extreme variation of temperature ... 25.5

The maximum temperature ... 77.8

The mean relative humidity ... 72

The total fall of rain from 7th to 13th December 1884 ... Nil

The mean temperature and humidity are obtained by applying to the mean of the 10h, 16h and minimum readings a correction dependent on the range, and derived from the hourly observations at the Surveyor-General's Office, Chowringhee, in past years.

METEOROLOGICAL OFFICE, INDIA;  
Calcutta, the 15th December 1884.

W. L. DALLAS,  
for Meteorological Reporter to the Govt. of India.

## MEMORANDA.

THE principal features in the vital statistics of the first class Municipalities in Bengal for the week ending 29th November 1884, as presented in the statement appended to this memoranda, are the following:—

1. That births were registered in the proportion of 31·6 per 1,000 of the living and deaths at 42·3 per 1,000, as opposed to 29·4 and 39·6 per 1,000, respectively, during the preceding week ending 22nd November, exhibiting a satisfactory improvement in the record of both events.

2. That the highest proportions of births and deaths were returned by the following Municipalities:—

<i>Births.</i>			<i>Deaths.</i>		
		Ratio per mille.			Ratio per mille.
Mozufferpore ...	...	53·5	Chittagong ...	...	72·7
Serampore ...	...	51·0	Serampore ...	...	70·6
Monghyr ...	...	50·6	Suburbs of Calcutta ...	...	58·9
Patna ...	...	39·2	Burdwan ...	...	56·4
Gya ...	...	37·6	Jessore ...	...	55·1
Commillah ...	...	34·7	Bhagulpore ...	...	54·2
Burdwan ...	...	33·6	Dacca ...	...	53·1
Naraingunge ...	...	33·2	Ranaghat ...	...	47·9
Dacca ...	...	33·1	Santipore ...	...	47·3
Chupra ...	...	32·3	Utterpara ...	...	47·2
Bhagulpore ...	...	31·7	Hughli ...	...	43·6
Howrah ...	...	30·6	Howrah ...	...	42·8
Kishnaghur ...	...	30·3	Poori ...	...	42·8
Suburbs of Calcutta ...	...	29·6	Beauleah ...	...	42·0
Hughli ...	...	29·5	Kishnaghur ...	...	41·7
			Monghyr ...	...	41·6
			Gya ...	...	36·2
			Naraingunge ...	...	33·2
			Patna ...	...	33·1
			Mozufferpore ...	...	31·6
			Purneah ...	...	31·1

3. That the death-rates from the diseases specified in the table above referred to, as compared with the similar information for the preceding week, were—

			Ratio per mille during the weeks ending—	
			29th November 1884.	22nd November 1884.
Cholera ...	...	...	5·0	3·8
Small-pox ...	...	...	1	2
Fever ...	...	...	19·5	18·6
Bowel-complaints ...	...	...	6·6	6·1
Injury ...	...	...	6	6
Other causes ...	...	...	10·5	10·3

indicating chiefly, an increase in the death-rates from cholera and fever, especially from the first-named disease.

4. That the greatest suffering from cholera, fever, bowel-complaints and "Other causes" occurred in the undermentioned Municipalities, the other diseases exhibiting no special local severity:—

<i>Cholera.</i>		<i>Fever.</i>		<i>Bowel-complaints.</i>		<i>Other Causes.</i>	
	Ratio per mille.		Ratio per mille.		Ratio per mille.		Ratio per mille.
Chittagong ...	51·6	Jessore ...	55·1	Utterpara ...	37·8	Poori ...	21·4
Serampore ...	41·2	Santipore ...	43·8	Serampore ...	13·7	Dacca ...	20·7
Poori ...	10·7	Burdwan ...	42·7	Beauleah ...	13·1	Hooghly ...	17·4
Suburbs of Calcutta ...	8·7	Ranaghat ...	41·9	Monghyr ...	10·8	Suburbs of Calcutta ...	16·5
Howrah ...	8·4	Bhagulpore ...	30·8			Bhagulpore ...	12·6
Dacca ...	5·2	Kishnaghur ...	30·3			Howrah ...	10·8
		Beauleah ...	26·2			Gya ...	10·2
		Suburbs of Calcutta ...	25·0			Patna ...	10·0
		Purneah ...	24·2				
		Dacca ...	22·7				
		Monghyr ...	22·6				

5. That under the heads of *Sex*, *Class* and *Age*, the mortality of the week is stated to have been distributed as follows:—

<i>According to Sex.</i>		<i>According to Class.</i>		<i>According to Age.</i>	
	Ratio per mille.		Ratio per mille.		Ratio per mille.
Males ...	43·5	Christians ...	26·1	Under 1 year ...	305·3
Females ...	41·0	Hindus ...	42·4	1 and under 5 years ...	57·1
Ratio of male deaths to every 100 female deaths ...	120	Mahomedans ...	42·7	5 " 10 " ...	24·6
		Other classes ...	109·2	10 " 15 " ...	19·9
				15 " 20 " ...	22·0
				20 " 30 " ...	30·1
				30 " 40 " ...	32·6
				40 " 50 " ...	36·0
				50 " 60 " ...	47·0
				60 years and upwards ...	94·3

R. LIDDERDALE, M.D., Deputy Surgeon-General,  
Sanitary Commissioner for Bengal.

The 15th December 1884.



*Statement showing the Results of the Registration of Births and Deaths in the First Class Municipalities in Bengal during the week ending 29th November 1884.*

DISTRICTS.	NAMES OF MUNICIPALITIES.	POPULATION.			BIRTHS.			MORTALITY ACCORDING TO—											Sex.		Ratio of male deaths to every 100 female deaths.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
		Males.	Females.	Total.	NUMBER OF—	RATIO PER 1,000 OF POPULATION PER ANNUM.	Ratio of male births to every 100 female births.	DISEASE.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
								Males.	Females.	Total.	DEATHS FROM—																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
											Cholera.	Small-pox.	Fever.	Bowel-complaints.	Injury.	Other diseases.	All causes.	Cholera.	Small-pox.	Fever.	Bowel-complaints.	Injury.	Other diseases.	All causes.	Ratio of deaths per 1,000 of population per annum in the previous week.	Males.	Females.	Ratio per 1,000 of population per annum.	Deaths.	Males.	Females.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
Burdwan	Burdwan	13,053	16,017	34,080	15	7	22	22.9	10.7	33.6	214	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...</

A special census of the Europeans in the Darjiling Municipality was recently taken, as the census of this section of the community taken in February 1881 was not reliable, owing to the Europeans being at a minimum in that month. The number as before, as it was not necessary to re-census them. The ratios have consequently been calculated on the revised population under all heads in the above table, except "Deaths from Cholera," which is based on the result of the census of 1881. The number included do not appear to be employed as a basis of calculation owing to the result of the census of 1881.

13			14			15			16		
MORTALITY ACCORDING TO—											
Class.			Age.								
DEATHS AMONG—			DEATHS.			RATIO PER 1,000 OF POPULATION PER ANNUM.					
NAMES OF MUNICIPALITIES.			DEATHS.			RATIO PER 1,000 OF POPULATION PER ANNUM.					
DEATHS AMONG—			DEATHS.			RATIO PER 1,000 OF POPULATION PER ANNUM.					
DEATHS AMONG—			DEATHS.			RATIO PER 1,000 OF POPULATION PER ANNUM.					
DEATHS AMONG—			DEATHS.			RATIO PER 1,000 OF POPULATION PER ANNUM.					
DEATHS AMONG—			DEATHS.			RATIO PER 1,000 OF POPULATION PER ANNUM.					
DEATHS AMONG—			DEATHS.			RATIO PER 1,000 OF POPULATION PER ANNUM.					
DEATHS AMONG—			DEATHS.			RATIO PER 1,000 OF POPULATION PER ANNUM.					
DEATHS AMONG—			DEATHS.			RATIO PER 1,000 OF POPULATION PER ANNUM.					
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R. LIDDERDALE, M.D., Deputy Surgeon-General,  
Sanitary Commissioner for Bengal.

OFFICE OF SANITARY COMMISSIONER FOR BENGAL,

The 15th December 1884.



PUBLIC WORKS DEPARTMENT, IRRIGATION BRANCH, BENGAL.  
NUDDEA RIVERS.

Statement showing the total amount of Traffic and Tolls on the Jellinghee River for the month of October 1884.

Number of Boats.	NATURE OF CARGO.	APPROXIMATE		TONNAGE OF BOATS.		Tollage.
		Weight of cargo.	Value of cargo.	Maunds.	£ons.	
	LOCAL TRAFFIC.	Mds.	Rs.			Rs. A. P.
77	Paddy ...	19,975	29,962	37,725	1,347	282 15 0
72	Rice ...	11,450	40,075	21,100	753	158 4 0
16	Wheat ...	6,400	12,800	12,700	453	95 4 0
45	Gram ...	14,125	28,250	27,750	991	208 2 0
59	Pulses and other crops	22,800	45,600	43,025	1,536	322 11 0
2	Fruits and vegetables	500	1,000	1,100	39	8 4 0
84	Salt ...	17,475	48,056	33,300	1,189	333 0 0
2	Oil ...	300	2,400	825	29	8 4 0
1	Sajee ...	50	150	125	4	1 4 0
14	Tobacco ...	4,325	21,625	7,750	276	77 8 0
2	Brass ...	100	4,000	275	9	2 12 0
2	Iron ...	725	5,075	1,500	53	15 0 0
287	Jute ...	95,775	2,39,437	1,85,500	6,625	1,855 0 0
8	Indigo seed ...	625	5,000	1,425	50	10 11 0
19	Linseed ...	7,100	21,300	13,900	496	104 4 0
9	Mustard seed ...	3,475	13,900	6,925	247	51 15 0
19	Ghooting ...	6,250	1,562	10,725	383	26 13 0
66	Steamer ...	.....	.....	.....	.....	152 10 0
2	Bone ...	150	37	375	14	1 14 0
6	Bamboos (6,400 in number) ...	.....	.....	.....	.....	4 8 0
103	Miscellaneous ...	23,100	1,84,800	45,475	1,624	454 12 0
9	Coal and coke ...	3,525	3,525	6,800	242	34 0 0
27	Firewood ...	575	143	1,225	43	6 2 0
3	Earthware and earthen-pots ...	70	17	200	7	0 4 0
934	Total ...	2,38,870	7,08,714	4,59,725	16,410	4,216 1 0
940	Total of same month last year ...	3,64,585	10,63,557	6,99,775	24,979	5,659 15 0
	MISCELLANEOUS.					
596	Passenger boat ...	.....	.....	.....	.....	205 0 0
178	Empty " ...	.....	.....	1,27,200	4,542	159 0 0
12	Straw ...	4,100	1,025	7,350	262	36 12 0
11	Oil-cake ...	1,650	1,650	3,125	111	31 4 0
11	Gunny ...	2,900	29,000	5,850	208	58 8 0
808	Total ...	8,650	31,675	1,43,525	5,123	490 8 0
1,285	Total of same month last year ...	45,875	3,49,987	3,53,800	12,633	1,439 15 0
1,742	Grand Total ...	2,47,520	7,40,389	6,03,250	21,533	4,706 9 0
2,225	Grand Total of same month last year ...	4,10,460	14,13,544	10,53,575	37,612	7,099 14 0

## MEMORANDUM.

Rs. A. P.

Unrecovered balance on the 1st of the month	...	...	...	...	...	4,706 9 0
Amount of tollage for the month	...	...	...	...	...	4,706 9 0
Amount credited in the accounts for the month	...	...	...	...	...	4,706 9 0
Balance at the end of the month	...	...	...	...	...	.....

## PUBLIC WORKS DEPARTMENT, IRRIGATION BRANCH, BENGAL.

## NUDDEA RIVERS.

Statement showing the total amount of Traffic and Tolls on the Matabhanga River for the month of October 1884.

Number of Boats.	NATURE OF CARGO.	APPROXIMATE		TONNAGE OF BOATS.		Tollage.
		Weight of cargo.	Value of cargo.	Maunds.	Tons.	
	LOCAL TRAFFIC.	Mds.	Rs.			Rs. A. P.
87	Paddy ...	20,288	30,432	43,175	1,599	323 13 0
47	Rice ...	9,364	28,092	21,850	809	163 14 0
2	Wheat ...	230	575	1,525	56	11 7 0
28	Gram ...	7,264	14,528	12,750	472	95 10 0
67	Pulses and other crops	31,358	54,876	48,900	1,811	366 12 0
27	Fruits and vegetables...	1,870	1,870	4,150	153	31 2 0
7	Jaggery ...	441	2,646	1,200	44	12 0 0
1	Sugar ...	11	176	375	13	3 12 0
59	Salt ...	16,804	50,412	35,900	1,329	359 0 0
3	Ghee ...	33	990	900	33	9 0 0
25	Oil ...	3,041	39,533	14,350	531	143 8 0
16	Spices ...	2,993	29,930	9,450	350	94 8 0
3	Tobacco ...	250	1,250	675	25	6 12 0
3	Cotton piece-goods (European) ...	186	18,600	1,725	63	17 4 0
1	Brass ...	20	400	100	3	1 0 0
12	Iron ...	1,451	7,255	8,525	315	85 4 0
.....	Cotton ...	10	200	.....	.....	.....
1	Do. twist and yarn (European) ...	25	500	450	16	4 8 0
368	Jute ...	1,49,224	4,47,672	3,08,350	11,420	3,083 8 0
1	Hemp ...	4	12	25	.....	0 4 0
15	Linseed ...	5,782	21,682	11,875	439	89 1 0
3	Mustard-seed ...	1,485	5,940	3,275	121	24 9 0
4	Til seed ...	781	2,733	2,000	74	15 0 0
3	Other oil seeds ...	260	780	600	22	4 8 0
.....	Ghooting lime ...	400	400	.....	.....	.....
1	Ghooting ...	300	150	600	22	1 8 0
1	Portland cement ...	6	15	650	24	6 8 0
1	Sand ...	100	25	225	8	0 4 6
.....	Unwrought timber and piles ...	40	120	.....	.....	0 12 0
2	Beams and burgahs ...	100	400	750	27	7 8 0
17	Coal and coke ...	7,975	2,990	10,125	375	50 10 0
1	Charcoal ...	350	87	825	30	4 2 0
1	Earthware and earthen-pots ...	100	25	250	9	0 5 0
3	Stone plates ...	200	1,000	625	23	6 4 0
810	Total ...	2,62,746	7,66,296	5,46,175	20,216	5,023 13 6
2,301	Total of same month last year.	4,26,630	16,00,228	8,67,100	32,098	10,876 6 6
	MISCELLANEOUS.					
507	Passenger boat ...	.....	.....	.....	.....	166 8 0
593	Empty " ...	.....	.....	.....	.....	1,225 2 0
2	Hay ...	600	600	1,225	45	6 2 0
30	Oil-cake ...	4,825	4,825	11,975	443	119 12 0
2	Mats ...	250	600	525	19	5 4 0
59	Miscellaneous ...	8,224	82,240	30,525	1,130	305 4 0
2	Gunny ...	80	400	275	10	2 12 0
2	Empty steamers and flats	.....	.....	.....	.....	47 8 0
1	Laden ditto ...	1,000	10,000	6,700	248	50 4 0
1,198	Total ...	14,979	98,665	51,225	1,895	1,928 8 0
1,145	Total of same month last year.	23,660	2,34,847	1,02,200	3,784	1,234 9 0
2,008	Grand Total ...	2,77,725	8,64,961	5,97,400	22,111	6,952 5 6
3,446	Grand Total of same month last year.	4,50,290	18,35,075	9,69,300	35,882	12,110 15 6

## MEMORANDUM.

Rs. A. P.

Unrecovered balance on the 1st of the month	.....	5,941 8 10
Amount of tollage for the month	.....	6,952 5 6
Total	.....	12,893 14 4
Amount credited in the accounts for the month	.....	12,735 8 3
Balance at the end of the month	.....	158 6 1



## PUBLIC WORKS DEPARTMENT, IRRIGATION BRANCH, BENGAL.

## NUDDEA RIVERS.

Statement showing the total amount of Traffic and Tolls on the Bhagiruthee River at Nuddea Toll Station for the month of October 1884.

Number of Boats.	NATURE OF CARGO.	APPROXIMATE		TONNAGE OF BOATS.		Tollage.
		Weight of cargo.	Value of cargo.	Maunds.	Tons.	
	LOCAL TRAFFIC.	Mds.	Rs.			Rs. A. P.
30	Paddy ...	9,975	14,962	17,450	623	130 14 0
11	Rice ...	2,445	8,557	4,550	162	34 2 0
1	Wheat ...	80	160	150	5	1 2 0
8	Gram ...	4,150	8,300	8,325	297	62 7 0
15	Pulses and other crops	4,450	8,900	8,525	304	63 15 0
5	Jaggery ...	575	2,300	1,325	47	13 4 0
80	Salt ...	24,575	67,581	47,100	1,682	471 0 0
4	Ghee ...	340	9,520	775	27	7 12 0
1	Tobacco ...	175	875	450	16	4 8 0
3	Brass ...	240	9,600	550	16	5 8 0
29	Iron ...	14,775	1,03,425	26,100	932	261 0 0
31	Jute ...	15,125	37,812	28,000	1,000	280 0 0
2	Hides ...	125	1,250	400	14	4 0 0
13	Linseed ...	6,975	20,925	13,425	479	100 11 0
2	Ghooting ...	525	131	950	33	2 6 0
5	Flat ...	.....	.....	.....	.....	31 8 0
1	Unwrought timber and piles 3 D.	.....	.....	.....	.....	1 2 0
24	Steamer ...	.....	.....	.....	.....	65 6 0
4	Bone ...	450	112	900	32	4 8 0
2	Bamboos (2,000 in No.)	.....	.....	.....	.....	1 8 0
114	Miscellaneous ...	31,815	2,54,520	61,950	2,212	619 8 0
2	Coal and coke ...	700	700	1,575	56	7 14 0
8	Earthware and earthen-pots	775	193	1,225	43	1 8 6
395	Total ...	1,18,270	5,49,823	2,23,725	7,980	2,175 7 6
315	Total of same month last year	87,800	3,01,560	1,70,525	6,077	1,596 7 0
	MISCELLANEOUS.					
731	Passenger boat ...	.....	.....	.....	.....	278 4 0
147	Empty „ ...	.....	.....	1,76,675	6,309	220 13 6
4	Straw ...	1,200	300	2,475	88	12 6 0
4	Gunny ...	475	4,750	1,225	43	12 4 0
886	Total ...	1,675	5,050	1,80,375	6,440	523 11 6
1,351	Total of same month last year	30,600	2,46,756	5,07,325	18,117	1,488 11 0
1,281	Grand Total ...	1,19,945	5,54,873	4,04,100	14,420	2,699 3 0
1,666	Grand Total of same month last year	1,18,400	5,48,316	6,77,850	24,194	3,085 2 0

## MEMORANDUM.

	Rs. A. P.
Unrecovered balance on the 1st of the month	.....
Amount of tollage for the month	2,699 3 0
Total	2,699 3 0
Amount credited in the accounts for the month	2,699 3 0
Balance at the end of the month	.....

PUBLIC WORKS DEPARTMENT, IRRIGATION BRANCH, BENGAL.  
NUDDEA RIVERS.

*Statement showing the total amount of Traffic and Tolls on the Bhagiruthee River at Jungypore Toll Station for the month of October 1884.*

Number. of Boats.	NATURE OF CARGO.	APPROXIMATE		TONNAGE OF BOATS.		Tollage.
		Weight of cargo.	Value of cargo.	Maunds.	Tons.	
	LOCAL TRAFFIC.	Mds.	Rs.			Rs. A. P.
3	Rice ...	365	900	750	28	5 10 0
53	Wheat ...	21,115	48,152	40,350	1,480	302 10 0
29	Gram ...	17,710	33,240	30,950	1,135	232 2 0
180	Pulses and other crops	86,796	1,99,252	1,57,375	5,404	1,179 1 6
38	Fruits and vegetables	8,484	8,504	17,175	630	130 2 0
10	Jaggery ...	8,130	3,928	6,975	256	69 12 0
10	Sugar ...	3,034	37,500	6,975	256	69 12 0
6	Salt and khari salt ...	2,028	1,765	3,975	146	39 12 0
4	Ghee ...	278	9,044	1,025	38	10 4 0
20	Tobacco ...	5,764	20,333	13,150	482	131 8 0
4	Brass ...	114	7,490	575	21	5 12 0
17	Silk ...	216	5,979	1,775	65	17 12 0
1	Cotton ...	27	204	200	7	2 0 0
13	Jute ...	2,967	7,751	5,400	198	54 0 0
63	Linseed ...	39,513	1,56,318	69,975	2,639	524 13 0
6	Castor seed ...	4,575	10,175	9,575	351	71 13 0
96	Mustard seed ...	34,281	1,34,259	65,275	1,267	489 9 0
69	Other oilseeds ...	46,001	1,72,535	83,275	3,127	624 9 0
3	Silk piece-goods ...	7	2,900	175	6	1 12 0
2	Ghooting lime ...	300	50	600	22	3 0 0
11	Ghooting ...	790	75	1,325	49	3 5 0
3	Sand ...	300	14	625	23	0 12 6
2	Unwrought timber and rafts. piles (15½)	.....	292	.....	.....	5 13 0
20	Roadstone ...	25,300	2,616	48,000	1,760	120 0 0
6	Coal and coke ...	2,175	1,087	3,975	146	19 14 0
10	Firewood ...	1,575	199	3,100	114	15 8 0
677 & 2 rafts.	Total ...	3,06,845	8,64,562	5,72,550	19,650	4,130 14 0
543	Total of same month last year.	2,06,988	.....	3,88,825	.....	2,755 8 6
	MISCELLANEOUS.					
341	Passenger boat, 579 oars.	.....	.....	.....	.....	144 12 0
175	Empty boat ...	.....	.....	1,08,825	3,990	136 0 6
2	Straw ...	23	13	75	3	0 6 0
1	Gunny ...	144	525	300	11	3 0 0
20	Sajji ...	11,767	13,472	21,925	804	219 4 0
209	Miscellaneous mixed cargo ...	61,184	2,21,493	1,21,750	4,464	1,217 0 0
748	Total ...	73,118	2,35,503	2,52,875	9,272	1,720 6 6
655 & 1 raft.	Total of same month last year.	31,965	.....	1,76,975	.....	915 4 0
1,425 & 2 rafts.	Grand Total ...	3,79,963	11,00,065	8,25,425	28,922	5,851 4 6
1,198 & 1 raft.	Grand Total of same month last year.	2,38,953	.....	5,60,800	.....	3,670 12 6

## MEMORANDUM.

Unrecovered balance on the 1st of the month	...	Rs. A. P.
Amount of tollage for the month	...	5,851 4 6
Amount credited in the accounts for the month	...	5,855 6 6
Balance at the end of the month	...	.....



## ABSTRACT FOR THE MONTH OF OCTOBER 1884.

	TRAFFIC, 1884-85.						TRAFFIC, 1883-84.					
	During the month.			To end of the month.			During the corresponding month.			To end of the corresponding month.		
NUDDEA RIVERS.	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.
Jellinghee river ...	4,706	9	0	24,781	2	9	7,099	14	0	32,204	11	0
Matabhanga river ...	6,952	5	6	51,547	14	0	12,110	15	6	62,242	11	6
Bhagiruthee river at Nuddea												
Toll-station ...	2,699	3	0	18,831	10	0	3,085	2	0	19,855	6	0
Ditto at Jungypore Toll-station.	5,851	4	6	39,674	12	6	3,670	12	6	44,232	12	0
TOTAL ...	20,209	6	0	1,34,835	7	3	25,966	12	0	1,58,535	8	6

CALCUTTA,  
The 16th December 1884. }

C. W. ODLING,  
Under-Secy. to the Govt. of Bengal.

## PUBLIC WORKS DEPARTMENT, BENGAL.

## IRRIGATION BRANCH.

IRRIGATION OPERATIONS FOR THE OFFICIAL YEAR 1884-85.

Areas leased for Irrigation up to the end of October 1884.

CIRCLE.	DISTRICT.	CANAL.	Esti- mated full dis- charge.	Average discharge in month.	Dis- charge utilized.	Approx- imate area of land irrigated during the year up to the end of the month.	Approx- imate area of land under irrigation up to the same date last year.	DETAILS OF AREAS LEASED.										RAINFALL 1884-85.		RAINFALL 1883-84.		REMARKS.	
								Five years. All crops.					ANNUAL LEASES.					Grand Total.	In.	In.	Up to end of month.		During end of month.
								Acr.	C. ft.	Khur- reef.	Rabbee.	Sugar- cane.	Bhadol.	Hot weather.	Total.	Acr.	C. ft.						
Orissa.	Cuttack.	Kendrapara ...	1,269	57.05	447.51	24,376	11,629	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Gobri ...	68.14	18.48	345	255	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Pattamondoo ...	1,042	253.88	57.00	7,721	3,287	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		High Level, ...	675	253.92	265.92	12,747	11,202	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Section I. ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Balasore.	Taidunda, 1st ...	1,315	222	12	3,215	2,404	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Reach. ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Taidunda, 2nd ...	533	24	20	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Reach. ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Matungong ...	775	131	44	7,499	2,136	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
South- Western.	Midnapore.	High Level, Sec- tion II. ...	727.16	95.92	95.92	1,327	994	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		High Level, Sec- tion III. ...	727.16	31.76	31.76	15,030	3,073	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Total ...	...	...	...	72,261	34,931	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Total of the corresponding period of last year.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Midnapore ...	1,411	393	390	59,236	89,739	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Howrah.	Panchgaurah ...	522	102	87	4,384	10,083	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Tidal Reaches, ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Ranges I & II. ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Total ...	...	...	...	64,777	91,013	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Total of the corresponding period of last year.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Sone.	Shahabad.	Western Main ...	4,342	2,789	631	16,577	17,828	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Buxar ...	1,226	557	468	61,173	53,559	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Arrah ...	1,659	1,090	1,478	1,04,357	90,322	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Eastern Main ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Patna ...	1,466	1,515	1,316	1,994	590	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Gya.	Patna ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Total ...	...	...	...	2,31,770	1,95,991	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Total of the corresponding period of last year.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Grand Total ...	...	...	...	3,08,770	3,31,985	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Grand Total of the correspond- ing period of last year ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

Whole month discharging.  
12 days discharging.

The 16th December 1884.

C. W. ODLING,  
Under-Secy. to the Govt. of Bengal.



## EAST INDIAN RAILWAY.

Statement of Goods Traffic in Staples carried during the four weeks ending 25th October 1884, as compared with the same period of 1883.

STAPLES.	1884.		1883.		Increase.		Decrease.	
	Weight.	Freight.	Weight.	Freight.	Weight.	Freight.	Weight.	Freight.
	Mds.	Rs.	Mds.	Rs.	Mds.	Rs.	Mds.	Rs.
ANIMALS, LIVING.								
FOR SALE.								
Horses, ponies, and mules	No. 6	742	118	2,420	.....	.....	112	1,673
Cattle	75	629	534	3,483	.....	.....	459	2,854
Sheep and goats	3,514	2,175	2,168	1,900	1,346	275	.....	.....
Other kinds	.....	.....	.....	.....	.....	.....	.....	.....
Borax	424	294	845	413	.....	.....	421	119
Canes and ratans	36	83	35	82	1	1	.....	.....
Caoutchouc (Indian-rubber)	6	6	12	8	.....	.....	7	.....
Chinese and Japanese ware	34	37	22	23	12	14	.....	.....
Coal and coke, up	3,04,620	1,12,523	3,08,110	1,62,578	.....	.....	3,490	60,050
Ditto, down	12,62,296	1,74,164	14,87,056	2,48,064	.....	.....	2,24,760	33,900
Cotton, raw	23,794	17,621	37,698	42,746	.....	.....	13,904	25,125
Twist and yarn (European)	7,580	13,193	7,050	11,310	530	1,874	.....	.....
Ditto (Indian)	8,841	5,548	7,069	4,395	1,772	1,153	.....	.....
COTTON, MANUFACTURED.								
Piece-goods (European)	1,37,621	1,74,323	1,55,243	2,13,942	.....	.....	20,622	39,619
Ditto (Indian)	35,249	22,905	36,988	25,891	.....	.....	839	2,986
Asafotida	154	72	163	70	.....	.....	12	7
DRUGS AND MEDICINES.								
Other sorts, not intoxicating	863	1,288	787	1,166	76	122	.....	.....
Intoxicating drugs (other than opium, i.e., arsenic, bhang, ganja, and churus, &c.)	1,161	616	492	204	669	412	.....	.....
DYEING MATERIALS.								
Indigo	5,753	24,037	22,154	57,963	.....	.....	16,401	33,926
Madder or manjit	239	53	50	19	189	34	.....	.....
Safflower	16	10	105	50	.....	.....	89	40
Turneric	8,918	11,248	8,970	11,277	.....	.....	52	29
Other kinds	8,190	6,461	10,369	8,224	.....	.....	2,179	1,763
Earthenware and porcelain	475	953	524	984	.....	.....	49	21
Jute, raw	1,546	469	2,084	645	.....	.....	738	176
FIBROUS PRODUCTS.								
Do., manufactured (gunny bags and cloths).	78,317	29,064	45,192	27,076	3,125	1,988	.....	.....
Other fibres, raw	1,710	376	1,026	175	684	206	.....	.....
Ditto, manufactured	1,440	466	1,468	481	.....	.....	28	15
FRUITS & NUTS.								
Cocoanuts	3,659	4,609	3,984	4,859	.....	.....	325	250
All other kinds	26,837	30,637	30,746	35,562	.....	.....	3,909	4,935
Wheat	1,40,832	37,196	4,32,132	1,44,686	.....	.....	2,82,300	1,07,490
GRAIN & PULSES.								
Gram and pulses	1,86,184	34,619	1,13,084	29,549	73,100	5,970	.....	.....
Rice, husked	1,33,362	29,309	2,52,172	67,399	.....	.....	1,18,810	38,090
Do., unhusked	16,951	3,833	17,341	2,633	.....	.....	390	.....
Other rain and spring crops	1,24,402	26,163	2,36,422	43,843	.....	.....	1,06,020	17,680
Gums and resins	3,216	2,103	3,138	1,936	78	167	.....	.....
HIDES & SKINS.								
Hides of cattle	33,389	16,302	33,120	16,622	269	.....	.....	339
Skins of sheep, goats, and small animals.	8,885	4,821	6,066	4,682	2,619	139	.....	.....
Horns	1,432	824	984	681	448	143	.....	.....
LAC								
Lac dye	101	51	90	49	11	2	.....	.....
Do. shell	17,727	19,423	12,329	13,368	5,398	6,055	.....	.....
Do. stick and other kinds	16,474	5,070	19,124	7,840	.....	.....	2,650	1,870
LEATHER								
Leather, unmanufactured	1,631	3,389	1,382	2,762	249	627	.....	.....
Ditto, manufactured	8,925	5,384	2,974	4,539	351	845	.....	.....
LIQUORS								
Mats	13,499	13,328	17,930	14,874	.....	.....	4,431	1,546
Metallic	127	94	201	164	.....	.....	77	70
METALS AND MANUFACTURES.								
Brass and copper	26,954	24,504	28,749	28,160	.....	.....	1,795	3,056
Iron	50,603	68,976	75,107	62,308	.....	.....	6,131	11,705
Other metals	30,472	16,463	28,765	13,639	1,707	2,794	.....	.....
Oils	17,827	11,307	12,754	7,835	6,073	3,472	.....	.....
Opium	1,466	2,391	727	1,461	536	930	.....	.....
Paints and colours	1,187	1,616	1,462	1,574	.....	.....	275	.....
PROVISIONS								
Ghee	16,768	14,566	21,410	26,271	.....	.....	4,642	11,705
Other kinds	1,543	327	3,837	4,072	.....	.....	1,744	3,745
Railway materials, Construction Account	2,59,052	4,824	2,63,030	5,087	.....	.....	4,000	263
Ditto ditto, Foreign	1,68,902	1,11,849	2,11,091	1,16,578	.....	.....	43,989	4,729
Salt	3,64,032	83,995	3,50,032	93,880	13,980	.....	.....	3,891
SALTPETRE, &c.								
Saltpetre	24,885	9,789	35,668	16,187	.....	.....	10,783	6,398
Other saline substances	15,129	4,106	11,014	2,703	4,115	1,493	.....	.....
SEEDS.								
Mustard and rape	3,10,941	1,11,996	4,38,391	1,33,066	.....	.....	1,28,350	21,070
Til or gingelly	78,595	24,310	82,615	25,830	.....	.....	3,420	1,520
Other oil-seeds	10,850	2,785	8,840	2,275	2,610	510	.....	.....
Indigo seed	55,291	18,550	49,621	18,050	5,580	800	.....	.....
OTHER SEEDS.								
Tea-seed	3,751	385	841	295	2,910	90	.....	.....
Other kinds	10,174	5,038	22,114	6,908	.....	.....	11,940	1,870
Silk, raw	685	636	1,334	1,366	.....	.....	649	730
SILK								
Do., manufactured (European)	139	124	469	593	.....	.....	330	469
Do., ditto (Indian)	7,660	6,980	9,996	7,187	.....	.....	2,336	207
Spices	34,069	6,522	63,397	9,475	.....	.....	29,328	3,953
Stone and marble	84,442	26,573	1,16,785	43,012	.....	.....	32,343	16,439
SUGAR								
Sugar, refined	26,415	5,862	40,469	12,000	.....	.....	14,054	6,133
Do., unrefined	2,202	2,739	2,233	2,233	.....	.....	31	.....
Tea, Indian	909	33	697	178	212	.....	.....	146
Do., Foreign	16,735	7,261	29,874	18,079	.....	.....	13,139	10,818
Tobacco	14,351	2,840	27,999	5,303	.....	.....	13,648	2,463
WOOD								
Timber	12,970	532	18,338	1,127	.....	.....	5,368	595
Firewood	296	299	1,273	1,217	.....	.....	977	918
Wool, raw	621	839	355	415	266	424	.....	.....
Do., manufactured (European)	4,527	4,821	3,674	3,918	853	903	.....	.....
Wool, manufactured (Indian)	.....	.....	.....	.....	.....	.....	.....	.....
Shawls	.....	.....	.....	.....	.....	.....	.....	.....
All other articles of merchandise	1,99,349	1,57,606	2,24,646	1,62,626	.....	.....	25,297	4,330
Government stores	14,217	24,783	22,219	37,956	.....	.....	8,002	13,178
Minerals	53,574	12,281	42,325	9,087	11,249	3,194	.....	.....
Total	45,37,773	19,96,600	56,00,875	20,62,973	1,39,072	35,149	12,04,174	5,01,522

*General Remarks on the fluctuation of principal staples carried over the East Indian Railway  
during four weeks ended 25th October 1884.*

## INCREASES.

*Gram and Pulses.*—The increase in these staples is due to the scarcity in the Bombay Presidency and in Oudh.

*Shell Lac.*—This is attributable to an improved demand in England.

*Oil.*—Larger indents from the Mofussil in consequence of reduction in the price of imported oil, has caused the increase in this staple.

## DECREASES.

*Coal.*—The decrease in the upwards coal is due to stoppage of supplies to the R. M. Railway and the indents from other Foreign Railways having been less than last year. The falling off in the downwards coal is accounted for by the dulness of the Calcutta market.

*Cotton.*—The old crop having been exhausted and the new crop being late, caused the decrease in this commodity.

*Piece-goods.*—This decrease is accounted for by the Doorga Poojah and Luckee Poojah festivals having fallen earlier this year than in 1883, and the consequence is that the decrease shown in this month is covered by the increase in the last month ended 27th September 1884.

*Wheat.*—There has been no improvement in this staple, and the falling off is entirely due to absence of demand for export.

*Indigo.*—Want of brisk demand in the Calcutta market is the cause for this decrease.

*Rice (husked and unhusked).*—Due to partial failure of last season's crop owing to deficient rainfall.

*Railway Materials, Foreign.*—Decreased despatches of material to State and other Railways resulted in this decrease.

*Salt.*—An increase in weight attended with a decrease in the earnings may be attributed to the reduced rates for upwards and downwards salt: the latter came into force on the 1st October 1884.

*Seeds.*—The stocks of rape seed having been exhausted and supplies of other seeds much reduced, the prices asked were too high for shippers, hence this decrease.

*Sugar and Jaggree.*—Deficient and irregular rainfall last season injured the sugar-cane crop, and this falling off in the staples was the result.

*Tobacco.*—This is assignable to the demand for this staple being limited owing to the markets being dull.

*Ghee.*—This falling off is attributed to the prices being too high for business to be done at the principal ghee-producing stations.

N. ST. L. CARTER, *Traffic Manager.*

TRAFFIC MANAGER'S OFFICE, JAMALPUR, 9th December 1884.



## Weekly Return of Traffic Receipts on Indian Railways.

## EAST INDIAN RAILWAY.

Approximate Return of Traffic for week ended 6th December 1884 on 1,509½ miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. s.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	192,284	2,47,505 0 0	21,89,513 20	6,11,238 4 0	16,433 2 0	8,75,176 6 0	63,767	100,336½	164,103½
Or per mile of railway ...	.....	163 15 6	.....	404 14 10	10 14 2	579 13 6	.....	.....	.....
For previous 22 weeks of half-year ...	4,104,743	51,59,988 8 0	4,08,13,901 10	99,76,999 12 3	3,29,644 2 1	1,54,66,632 6 4	1,362,418½	1,861,780½	3,224,198½
Total for 23 weeks ...	4,597,027	54,07,493 8 0	4,29,94,414 30	1,05,88,238 0 3	3,46,077 4 1	1,63,41,808 12 4	1,426,185½	1,962,116½	3,388,302
COMPARISON.									
Total for corresponding week of previous year ...	178,183½	2,37,846 11 6	25,80,882 10	7,31,809 14 0	18,802 15 8	9,88,459 9 2	65,688	124,519	190,207
Per mile of railway corresponding week of previous year ...	.....	157 9 11	.....	484 15 5	12 7 4	655 0 8	.....	.....	.....
Total to corresponding date of previous year ...	4,515,406	52,78,913 11 2	5,48,74,158 10	1,44,21,900 11 1	3,32,643 2 5	2,00,33,457 8 8	1,458,151	2,886,303	4,344,454

Approximate Statement of gross receipts of the East Indian Railway, prepared in accordance with Public Works Department Circular No. XXI, Railway, dated 23rd July 1883.

RECEIPTS FOR WEEK ENDING 5TH DECEMBER 1883.			RECEIPTS FOR WEEK ENDING 6TH DECEMBER 1884.			TOTAL RECEIPTS FROM 1ST APRIL 1883 TO 5TH DECEMBER 1883.			TOTAL RECEIPTS FROM 1ST APRIL 1884 TO 6TH DECEMBER 1884.			Total increase in 1884.	Total decrease in 1884.
Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked.		
	Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.	Rs.	Rs.
1,509	9,88,460	655	1,509½	8,75,176	580	1,509	3,41,48,057	22,630	1,509½	2,79,69,377	18,529	.....	61,78,680

## EASTERN BENGAL STATE RAILWAY.

Approximate Return of Traffic for week ended 29th November 1884, on 359 miles open, including Calcutta and South-Eastern and Bengal Central Railway mileage.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated), including steam-boat.	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. s.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
A.—Total traffic for the week ...	84,129	36,381 0 0	3,57,728 0	72,214 0 0	8,747 0 0	1,17,342 0 0	15,791	10,696	26,447
Or per mile of railway ...	234	101 0 0	996 0	201 0 0	.....	302 0 0	.....	.....	.....
For previous 21 weeks of half-year ...	1,758,697	7,07,251 0 0	69,43,933 0	16,34,365 0 0	1,77,810 0 0	25,19,426 0 0	275,596	232,138	507,724
Total for 22 weeks ...	1,842,826	7,43,632 0 0	73,01,661 0	17,06,579 0 0	1,86,557 0 0	26,36,768 0 0	291,377	242,794	534,171
COMPARISON.									
B.—Total for corresponding week of previous year ...	91,703	41,418 0 0	2,65,962 0	53,838 0 0	10,734 0 0	1,05,990 0 0	10,246	8,329	18,482
Per mile of railway corresponding period of previous year ...	349	157 0 0	1,011 0	265 0 0	.....	362 0 0	.....	.....	.....
Total to corresponding date of previous year ...	1,684,720	7,83,359 0 0	63,60,181 0	13,08,671 0 0	2,24,564 0 0	23,16,594 0 0	215,634	178,953	394,637

A.—Includes receipts of Calcutta and South-Eastern Railway, and 50 per cent. of receipts of Bengal Central Railway, viz., Rs. 5,077 and Rs. 4,340 respectively apportioned over the several heads of traffic.

B.—Includes share of Bengal Central Railway receipts due to Eastern Bengal State Railway for working, viz., Rs. 1,046, and Calcutta and South-Eastern receipts Rs. 4,434.

## FINANCIAL YEAR.

Approximate Statement of gross receipts of the Eastern Bengal State Railway.

RECEIPTS FOR WEEK ENDING 1ST DECEMBER 1883.			RECEIPTS FOR WEEK ENDING 29TH NOVEMBER 1884.			TOTAL RECEIPTS FROM 1ST APRIL 1883 TO 1ST DECEMBER 1883.			TOTAL RECEIPTS FROM 1ST APRIL 1884 TO 29TH NOVEMBER 1884.			Total increase in 1884.	Total decrease in 1884.
Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked.		
	Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.	Rs.	Rs.
263	1,05,990	403	359*	1,17,342	326	242	35,43,180	14,641	336	36,74,204	10,935	1,31,024	.....

\*Increase in mileage.

	Miles.
Eastern Bengal State Railway	5
Bengal Central Railway	91
Total	96

## BENGAL CENTRAL RAILWAY.

Approximate Return of Traffic for week ended 29th November 1884 on 126 Miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. s.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	18,148	7,211 0 0	13,016 0	1,430 0 0	40 0 0	8,671 0 0	3,993	1,056	5,049
Or per mile of railway ...	144	57 0 0	103 0	11 0 0	.....	68 0 0	.....	.....	.....
For previous 21 weeks of half-year ...	371,273	1,49,233 0 0	2,28,511 0	20,642 0 0	997 0 0	1,70,873 0 0	67,430	22,571	90,001
Total for 22 weeks ...	389,420	1,56,444 0 0	2,39,527 0	22,062 0 0	1,037 0 0	1,79,543 0 0	71,423	23,627	95,050
COMPARISON.									
Total for corresponding week of previous year ...	11,574	1,896 0 0	5,673 0	179 0 0	16 0 0	2,091 0 0	911	297	1,208
Per mile of railway corresponding period of previous year ...	331	54 0 0	162 0	5 0 0	1 0 0	69 0 0	.....	.....	.....
Total to corresponding date of previous year ...	217,363	88,684 0 0	3,07,394 0	8,005 0 0	526 0 0	47,305 0 0	19,899	6,794	26,648

## FINANCIAL YEAR.

Approximate Statement of Gross Receipts of the Bengal Central Railway.

RECEIPTS FOR WEEK ENDING 1st DECEMBER 1883.			RECEIPTS FOR WEEK ENDING 29th NOVEMBER 1884.			TOTAL RECEIPTS FROM 1st APRIL 1883 TO 1st DECEMBER 1883.			TOTAL RECEIPTS FROM 1st APRIL 1884 TO 29th NOVEMBER 1884.			Total increase in 1884.	Total decrease in 1884.
Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked.		
	Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.	Rs.	Rs.
35	2,091	60	126	8,671	69	35	76,045	2,173	125	3,16,101	2,529	2,40,056	.....

## PATNA AND GYA STATE RAILWAY.

Approximate Return of Traffic for week ended 6th December 1884 on 57½ miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. s.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	12,461	6,243 7 0	49,452 30	2,932 4 0	50 11 0	9,226 6 0	1,796	1,404	3,200
Or per mile of railway ...	218	109 2 5	864 39	51 4 3	0 14 2	161 4 10	.....	.....	.....
For previous 22 weeks of half-year ...	298,877	1,73,477 15 0	9,75,561 10	67,809 5 0	2,029 4 6	2,43,316 8 6	38,126½	21,052½	59,179
Total for 23 weeks ...	311,338	1,79,721 6 0	10,25,014 0	70,741 9 0	2,079 15 6	2,52,542 14 6	39,922½	22,456½	62,379
COMPARISON.									
Total for corresponding week of previous year ...	8,100	3,989 12 6	36,208 20	2,810 12 0	52 0 0	6,852 8 6	1,765	979	2,742
Per mile of railway corresponding week of previous year ...	142	69 12 0	633 10	49 2 3	0 14 7	119 12 10	.....	.....	.....
Total to corresponding date of previous year ...	255,607	1,34,273 1 6	7,93,765 10	55,399 3 0	1,657 1 0	1,91,329 5 6	42,008	16,038	58,046

Approximate Statement of gross receipts of the Patna and Gya State Railway, prepared in accordance with Public Works Department Circular No. XXI, Railway, dated 23rd July 1883.

RECEIPTS FOR WEEK ENDING 8th DECEMBER 1883.			RECEIPTS FOR WEEK ENDING 6th DECEMBER 1884.			TOTAL RECEIPTS FROM 1st APRIL 1883 TO 8th DECEMBER 1883.			TOTAL RECEIPTS FROM 1st APRIL 1884 TO 6th DECEMBER 1884.			Total increase in 1884.	Total decrease in 1884.
Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked.		
	Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.	Rs.	Rs.
67½	6,853	120	57½	9,226	161	67½	3,11,053	5,438	57½	3,06,039	6,399	54,986	.....



## SINDIA STATE RAILWAY.

Approximate Return of Traffic for week ended 6th December 1884 on 74½ miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. S.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Traffic for the week	4,886	4,427 2 0	59,198 30	3,406 9 0	116 8 0	7,950 3 0	681½	1,148	1,829½
Per mile of railway	.....	59 6 10	.....	45 11 7	1 9 0	106 11 5	.....	.....	.....
Previous 22 weeks of half-year	94,757	77,227 3 0	10,78,446 30	51,886 7 3	2,244 11 9	1,31,358 6 0	14,113½	20,919	35,026½
Total for 23 weeks	99,643	81,654 5 0	11,37,645 20	55,293 0 3	2,361 3 9	1,39,308 9 0	14,795	22,061	36,856
COMPARISON.									
For corresponding week of previous year	4,076	3,301 5 1	83,430 10	4,002 7 0	16 9 0	7,320 5 1	409	1,224	1,633
Per mile of railway corresponding week of previous year	.....	44 5 0	.....	53 11 7	0 3 7	98 4 2	.....	.....	.....
Total to corresponding date of this year	102,117	81,537 15 8	8,06,881 20	55,450 4 0	2,730 12 0	1,39,748 15 8	14,260	20,462	34,731

Approximate Statement of gross receipts of the Sindia State Railway, prepared in accordance with Public Works Department Circular No. XXI. Railway, dated 23rd July 1883.

RECEIPTS FOR WEEK ENDING 6TH DECEMBER 1883.			RECEIPTS FOR WEEK ENDING 6TH DECEMBER 1884.			TOTAL RECEIPTS FROM 1ST APRIL 1883 TO 6TH DECEMBER 1883.			TOTAL RECEIPTS FROM 1ST APRIL 1884 TO 6TH DECEMBER 1884.			Total increase in 1884.	Total decrease in 1884.
Receipts.	Per mile worked.	Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked.	Mean mileage worked.		
Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.
7,320	98	74½	7,950	107	74½	2,24,370	3,012	74½	2,37,646	3,190		13,276	.....

## GHAZIPUR-DILDARNAGAR STATE RAILWAY.

Approximate Return of Traffic for week ended 6th December 1884, on 12 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. S.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Traffic for the week	2,000	354 6 0	24,988 30	895 3 6	27 6 0	1,276 15 0	200	129	329
Per mile of railway	.....	29 8 6	.....	74 9 7	2 4 6	106 6 7	.....	.....	.....
Previous 22 weeks of half-year	46,191	8,417 0 0	2,14,192 20	4,753 9 0	599 4 6	13,760 13 6	4,748½	2,697½	7,446
Total for 23 weeks	48,191	8,771 6 0	2,39,181 10	5,648 12 0	617 10 6	15,037 12 6	4,948½	2,826½	7,775
COMPARISON.									
Total for corresponding week of previous year	2,186	400 0 9	29,514 20	699 6 0	35 14 0	1,135 4 9	127	202	329
Per mile of railway corresponding week of previous year	.....	33 5 5	.....	58 4 6	2 15 10	94 9 9	.....	.....	.....
Total to corresponding date of previous year	48,757	8,572 1 11	2,84,953 10	6,507 2 0	620 8 0	15,699 11 11	4,873	2,766	7,639

Approximate Statement of gross receipts of the Ghazipur-Dildarnagar State Railway, prepared in accordance with Public Works Department Circular No. XXI, Railway, dated 23rd July 1883.

RECEIPTS FOR WEEK ENDING 6TH DECEMBER 1883.			RECEIPTS FOR WEEK ENDING 6TH DECEMBER 1884.			TOTAL RECEIPTS FROM 1ST APRIL 1883 TO 6TH DECEMBER 1883.			TOTAL RECEIPTS FROM 1ST APRIL 1884 TO 6TH DECEMBER 1884.			Total increase in 1884.	Total decrease in 1884.
Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked.		
	Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.	Rs.	Rs.
12	1,135	95	12	1,277	106	12	31,232	2,603	12	32,971	2,748	1,739	.....

## BENGAL PROVINCIAL RAILWAYS.

## Weekly Statement of Traffic Receipts.

Latest return received.	Name of Railway.	Length open.	RECEIPTS FOR WEEK ENDING		TOTAL RECEIPTS FROM 1ST JANUARY		Total increase in 1884.	Total decrease in 1884.	Percentage of increase or decrease.
			20th October 1883.	18th October 1884.	To 20th October 1883.	To 18th October 1884.			
1884.		Miles.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	
18th October	Northern Bengal	249	87,331 0 0	54,913 0 0	(a) 7,88,932 0 0	16,05,995 0 0	.....	1,82,937 0 0	-10
18th do.	Tirhoot	236	12,817 0 0	18,183 0 0	6,79,435 0 0	9,37,707 0 0	2,58,272 0 0	.....	+28
1st November	Nalhati	274	1,484 0 0	1,587 0 0	67,792 0 0	63,300 0 0	.....	4,492 0 0	-7
	Total	502 1/2	51,632 0 0	74,683 0 0	25,36,159 0 0	26,07,002 0 0	70,843 0 0	.....	+3

(a) This includes the supplementary figures for the quarter ending 30th of September 1884.

## DARJEELING-HIMALAYAN RAILWAY COMPANY, LIMITED.

	Rs.	A.	P.
Earnings for week ending 29th November 1884	8,843	0	0
Corresponding week last year	8,389	9	3
Increase	453	6	9
Receipts from 1st July to 29th November 1884	1,87,947	11	5
„ from 1st July to 1st December 1883	1,85,079	13	7
Increase	2,867	13	10
	Miles.		
Miles open week ending 29th November 1884	50		
Corresponding week last year	50		
	Rs. A. P.		
Receipts per mile open week ending 29th November 1884	176	13	9
Corresponding week last year	167	12	8
Increase	9	1	1

DARJEELING, the 6th December 1884.

W. STEVENSON, Secretary.





# SUPPLEMENT TO The Calcutta Gazette.

WEDNESDAY, DECEMBER 24, 1884.

## OFFICIAL PAPERS.

*Non-Subscribers to the GAZETTE may receive the SUPPLEMENT separately on payment of Six Rupees per annum if delivered in Calcutta, or Twelve Rupees if sent by Post.*

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### RESOLUTION ON THE REPORT ON THE ADMINISTRATION OF THE CUSTOMS DEPARTMENT FOR THE YEAR 1883-84.

REVENUE DEPARTMENT—MIS. REVENUE—No.

Calcutta, the 22nd December 1884.

#### RESOLUTION.

READ—

Report on the Administration of the Customs Department for the year 1883-84.

The following statement shows the gross and net customs revenue collected in Bengal on all articles during the past five years:—

	1879-80.	1880-81.	1881-82.	1882-83.	1883-84.
	Rs.	Rs.	Rs.	Rs.	Rs.
Import duty (excluding duty on salt) ...	72,18,176	72,72,428	61,72,991	14,87,018	15,13,590
Ditto on salt ...	2,33,22,924	2,27,44,388	2,37,15,928	1,74,72,613	1,78,13,587
Export duty ...	16,15,030	17,99,354	20,46,899	21,28,492	19,92,160
Total gross duty ...	3,21,56,150	3,18,16,170	3,19,35,818	2,10,88,123	2,08,19,277
Refunds and drawbacks—					
Imports ...	2,25,800	3,37,096	1,30,426	3,20,636	2,10,991
Exports ...	66,826	71,979	1,06,549	1,16,849	1,20,921
Total ...	2,92,326	4,09,075	4,09,975	4,37,476	3,31,912
Total net duty ...	3,18,63,824	3,14,07,095	3,15,25,843	2,06,50,647	2,04,87,365

The decline in the net duty of Rs. 1,63,282, or 7 per cent., is chiefly due to the falling off of Rs. 64,479 in the salt duty and of Rs. 1,40,473 in the export duty on rice. The reduced export of the latter article was the natural consequence of a short crop, and the same cause has probably tended to defer the gradual increase in the consumption of salt which was anticipated in the Resolution on last year's report. The decline of 35 per cent.

in the quantity cleared bears out this view. Import duty, exclusive of salt, shows a small increase of Rs. 26,572, or 1·8 per cent., due to larger collections under the heads of liquors and arms and ammunition. Looking to the returns for the several ports, it will be seen that the net revenue of Calcutta has fallen by 2 per cent., while that of all the outports has risen in varying proportions.

2. The total value of the imports into Bengal, exclusive of Government transactions, rose from Rs. 28,37,25,812 to Rs. 30,06,49,292. The rise was most marked in foreign merchandise, where it exceeded one crore and 37 lakhs. The imports of treasure, on the other hand, declined, the net result being an increase in the value of the foreign trade from Rs. 23,41,84,301 to Rs. 24,43,64,406. In the coasting trade a similar state of things has prevailed, the imports of merchandise rising by more than eighty lakhs, and those of treasure falling by over thirteen.

4. The value of the export trade of the year was Rs. 43,56 07,096, against Rs. 42,46,65,199 in 1882-83. In the foreign trade, exports rose in value from Rs. 34,43,30,483 to Rs. 36,21,32,528, representing an increase in the value of merchandise of Rs. 1,95,68,306, and a decrease in treasure amounting to Rs. 17,65,261. The total coasting trade exports show a decline from Rs. 8,03,34,716 to Rs. 7,34,73,568, owing to the reduced exports of Indian produce and to smaller shipments of silver to ports in British Burma. On the other hand, there was a considerable increase in the exports of foreign merchandise, such as cotton twist and yarn to Madras and piece-goods to Burma.

5. *Calcutta Foreign Trade.*—Turning now to the trade of the different ports in Bengal, it is observed that the imports of Government stores into the Port of Calcutta increased by more than 18 lakhs, or 19 per cent., railway plant alone showing an increase of more than 9 lakhs. Woollen piece-goods increased by more than 4½ lakhs, and paper and pasteboard by nearly 4 lakhs. Apart from Government transactions, the imports of the foreign trade of Calcutta rose from Rs. 23,39,17,864 to Rs. 24,40,48,995, or 4·3 per cent., and the exports from Rs. 33,40,63,753 to Rs. 35,07,72,762, or 5·5 per cent. The increase in imports was chiefly under the heads of railway plant, machinery, metals, cotton twist and woollen piece-goods; while the increase in exports occurred in raw cotton, indigo, wheat, hides, and oil-seeds. On the other hand, the exports of jute, gunny-bags, lac and opium fell off in various proportions.

6. A few slight changes are observed in the proportions which different countries contribute to the foreign trade of Calcutta. Thus, the share taken by the United Kingdom has increased from 62·35 to 65·40, the trade with France has risen from 2·80 to 3·02, and that with Austria from ·99 to 1·23. Hong-Kong, the United States, Ceylon, the Straits Settlements, and Australia have, on the other hand, lost ground. In the case of Hong-Kong the decrease is chiefly in the imports of treasure; while the trade with the United States has fallen off most largely in imports of kerosine oil, but also to a certain extent in exports of Indian produce. Ceylon has taken less grain from Calcutta, and has exported and imported less treasure than in ordinary years. The Straits Settlements have contributed smaller supplies of tin and pepper, and received considerably less opium than usual. In the case of Australia the total trade shows a decline of 37 lakhs, or 23·3 per cent., due to the smaller shipments of gunny-bags and tea. Imports, on the other hand, have increased, and there is said to be a prospect of the trade with India being developed by the means of a special line of steamers. The proportion of the foreign trade of Calcutta using the Suez Canal rose from 58·6 to 63·6, and it is stated that only 10 per cent. of the trade with Europe is carried by the Cape.

7. *Imports.*—The imports of cotton twist and yarn show an increase in value from Rs. 1,03,57,430 to Rs. 1,18,21,772, and in quantity from 13,058,628 lbs. to 15,255,962 lbs. At the same time the value of the imports of piece-goods of all kinds rose from Rs. 11,35,14,475 to Rs. 11,38,80,206. American piece-goods fell off remarkably, owing to English drills having displaced American drills in the market. Among English goods grey shirtings, which formerly commanded a ready sale, are said to have lost their popularity owing to the preference of the consumers for coarser and more substantial fabrics. On a general review of the trade in both yarn and piece-goods during the past year, there seems to be reason for believing that the increased importation was due rather to excessive production.



in England, which compelled merchants to divert their goods to India from the overstocked markets of China and Japan, than to any genuine extension of demand. • Indeed, the partial failure of crop, which occurred in 1883, furnishes of itself sufficient reason for thinking that the purchasing power of the people must have been somewhat reduced during the year. The current season has been equally unfavourable, and, so far as the piece-goods' trade depends upon agricultural prosperity, there seems to be no immediate prospect of a more active demand. On the other hand, it is probable that the extension of railways in Bengal, by cheapening these heavy goods to the consumers, will lead to increased purchases. Thus, the Bengal-Nagpore Railway, on which work has recently commenced, will open up large areas, where at present pack-bullocks form the only means of carriage, and the price of cloth is high in proportion to the extreme difficulty of transport. The demand for woollen piece-goods was steady throughout the year, the average price being somewhat less than in 1882-83. The trade in shawls was greater than at any time during the last five years, and there was no decline in the average price.

8. The total value of metals imported into Calcutta rose from Rs. 2,28,32,317 to Rs. 2,44,53,501, the increase being most marked under the heads of copper, wrought iron, and steel. The imports of unwrought iron have declined from the unusually high standard of the preceding year. The extended use of wrought iron in buildings is evidenced by a rise in the imports of 68½ per cent. The imports of lead show a decline of nearly 5,000 cwt., but this is said to be only a temporary fluctuation, as the demand for this metal for use in lining tea-boxes is necessarily of a permanent character. The value of the imports of railway plant and rolling-stock has risen from Rs. 40,17,623 to Rs. 80,58,989, or 100½ per cent., and this is likely to be maintained. Machinery and mill work also show an increase from Rs. 61,29,592 to Rs. 82,79,734, due to the extension of the cotton and jute industries. Here, however, a decline is anticipated, as the limits of profitable production appear to have been reached, and the results of the past year have, in the case of jute at any rate, been singularly unfavourable.

9. The imports of malt liquors show a rise in quantity from 508,006 to 601,477 gallons, and in value from Rs. 12,09,723 to Rs. 14,58,090. The Collector of Customs observes that the quantity of Pilsener beer imported has increased twenty-fold in five years, and now stands second only to the consumption of Bass' beer. He also refers to the increased imports of European beer as showing that beer brewed in the hills has failed at present to meet the taste of the general public. The imports of wines and spirits have declined in quantity and risen in value, owing to the increased consumption of high-priced whisky and champagne. The demand for brandy seems to be steadily falling off, and the same remark applies in a less degree to claret and sherry. The Collector of Customs discusses, with much good sense, the reasons why the Australian wines, of which specimens were brought to the International Exhibition, are not likely to become popular in India, unless their character is considerably modified. In Mr. Armstrong's judgment these wines are too strong and too sweet; they do not stand the climate; and their names, borrowed from those of well-known European wines, suggest expectations which their quality fails to satisfy.

10. As compared with the large imports of 1882-83, the imports of mineral oils have fallen by 41½ per cent. The quantity imported (7,566,526 gallons) was, however, considerably in excess of the imports of 1881-82, and preceding years. The Collector observes that, although the production of mineral oil in America may be supposed to have reached its maximum, the competition of newly discovered sources of supply, such as Batoum on the Caspian and Bushire in the Persian Gulf is likely to prevent any considerable rise in the price of American oil. On the other hand, the imports from British Burma have declined, and there seems to be little prospect of that province meeting any large proportion of the growing demand from Bengal. The use of kerosine oil among all classes of the native population seems likely to increase. Not only is it used for lighting, but there is a strong belief in its healing properties as an application for bruises and various kinds of skin disease. The importation of umbrellas has increased considerably, and the trade was a most satisfactory one during the year. This fact may be taken as some slight indication of the growth of habits of greater comfort among the people.

11. The imports of corals show a rise in quantity from 122,971 lbs to 154,716 lbs., and in value from Rs. 17,19,786 to Rs. 20,39,316. The over pro-

duction in Italy, referred to in last year's report, is said to have continued and to have caused prices to rule unusually low, while the Nepalese demand fell off owing to a dispute with the Thibetans. It is stated, on the other hand, that a combination has been formed among the Italian manufacturers to regulate shipments, and, independently of this, the extension of trade with Thibet, which may perhaps be looked for, will probably do much to improve the prospects of this industry.

12. Although no attempt seems to have been made to supply the native market with cheap Indian tea, the imports of China tea have fallen by about  $33\frac{1}{2}$  per cent., while the average price has remained as low as 6·3 annas per pound. The decline is attributed to over importation in 1881-82, leaving large stocks in hand which have not yet been cleared off.

13. Under the head of tobacco, the imports of cigars have increased, and there are signs of a demand for the more expensive kinds of cigars supplied by the United Kingdom; while at the same time the imports of Indian-made cigars show a steady increase. The imports of manufactured tobacco declined owing to excessive stocks and to a rise of prices in America.

14. *Exports.*—Some changes may be noticed in the proportion which various articles contribute to the export trade of Calcutta. Thus, the exports of grain and pulse have risen from  $11\frac{1}{2}$  to 15 per cent., jute has fallen from 20 to 14, and tea and oil-seeds have risen by 1 per cent. In other respects the normal proportions have, on the whole, been maintained. Owing probably to the partial failure of crop in 1883-84, the exports of rice fell off from 6,607,497 cwts. to 6,082,023 cwts.; while the value rose from Rs. 1,92,11,136 to Rs. 1,98,95,582. This was a great boon to the great rice-producing districts of Eastern Bengal, where the crop was a tolerably full one, and where producers often have to complain of the low prices of a year of plenty. Orissa also contributed an unusually large proportion of the year's exports, and the rice trade of that Province seems to show signs of recovering the importance it attained in 1877-78.

15. The exports of wheat for the last five years are shown in the following statement:—

1879-80.		1880-81.		1881-82.		1882-83.		1883-84.	
Cwt.	Rs.	Cwt.	Rs.	Cwt.	Rs.	Cwt.	Rs.	Cwt.	Rs.
1,583,666	76,47,508	3,955,209	1,51,20,959	6,666,896	2,52,03,295	4,438,503	1,79,33,850	7,611,414	3,04,27,244

The Collector of Customs makes the following comments on the prospects of the wheat trade.

"The three principal competitors in this trade with the United Kingdom are, it will be seen, the United States, Russia, and India. From the first, the receipts show a heavy decline, while from the two others there have been very substantial increases, Russia still occupying the second place, notwithstanding the large increase in receipts from India.

"The extension of the Indian wheat trade to very large proportions is, I believe, merely a question of the opening out of suitable tracts of country by railways and of cheap carriage. It may be said to be fairly ascertained now that the price of wheat in the large markets up country is substantially lower than the price at similar markets in the United States, while the quality of the wheat is good; in fact this price is so low that ultimately the bulk of the trade should be obtained by India.

"During the past year freights by sea from Calcutta have been very low, and owing to this and the reduction in the rate of railway carriage mentioned in the last year's report, exporters have been enabled to lay down their wheat in London at considerably cheaper rates than in the previous year, and so to compete on better terms with America. The larger trade of the past year is therefore a very good index of the effect of cheap carriage. Low freights, however, cannot always be expected, as the dearth of employment for vessels, which caused a large quantity of tonnage to be available at low rates, cannot be looked for every year.

"The importance of India as a competitor with the United States has forced itself very prominently upon the attention of the growers of wheat in the Western States, with the result that prices at Chicago are reported to be lower than they have been for twenty years. Low freights are also ruling, so that the competition has become very keen; but still India holds her own."

Cheap carriage to the coast is no doubt the main factor in the development of India's great resources as a wheat-producing country. But it is not the only one, and it is doubtful whether Indian wheat will be able to maintain a firm hold upon European markets, unless the cultivators do



more than they have hitherto done to keep the quality uniform, and to avoid mixing and adulteration. It will be one of the duties of the new Agricultural Department not to teach cultivators details of cultivation, which they know already, but to bring home to them the fact that if their products are to command a good price they must be up to a certain standard and be supplied under certain conditions.

16. There was a fall in the exports of raw jute from 9,191,884 cwt. to 5,953,147 cwt., owing partly to a failure of crop, and partly to the fact that the area sown with jute was contracted by the cultivators themselves, who were dissatisfied with the low prices which resulted from the full crop of the previous year. This element of uncertainty must always tend to affect the prospects of jute. It is grown on the same classes of land as some kinds of rice, and thus competes with the staple food-crop of the country. The exact effects of this interdependence of the two crops can probably not be defined, but it must obviously exercise an important influence upon the fluctuations of the trade from year to year. The exports of gunny-bags show an increase in quantity from 59,323,573 to 62,420,662, and a decline in value from Rs. 1,39,81,875 to Rs. 1,22,88,708. The prospects of the industry are at present believed to be discouraging. Production has outrun demand. New mills have been built or planned; the price of raw material has risen 50 per cent., while that of the manufactured article has fallen by 15; consequently many of the mills are working at a loss, and must continue to do so till the price of gunny-bags rises or the price of raw material falls.

17. A further increase is observed in the exports of tea from 56,846,361 lbs, valued at Rs. 3,62,06,208, to 59,190,914, valued at Rs. 4,02,34,619. The average price has advanced by 7 pies per pound, and the quality of the tea is believed to have been good, notwithstanding the large shipments made. The exports to Australia and America fell off remarkably, owing, it is said, to those markets having been overstocked in the preceding year. There seem, however, to be prospects of the trade with both countries recovering itself shortly. An encouraging feature in the progress of Indian tea is the steady development of its hold upon the English market. Thus, in 1877, Indian tea supplied only 19 per cent. and China tea 81 per cent. of the English demand, while in 1883 the percentage of China tea had fallen to 65.4, and that of Indian tea risen to 34.6 per cent. Ceylon tea is now said to be likely to compete with Indian tea in the English markets. The results of such competition can hardly be foreseen at present, but the development of the Ceylon trade should be watched and reported on in greater detail next year.

18. Among the other articles of export, indigo shows an increase of more than 10 per cent., and hides and skins of  $15\frac{3}{4}$  per cent. In raw silk there was an advance of  $18\frac{1}{2}$  per cent. owing to a revival of the demand for Bengal silk in the London market. Raw cotton shows a remarkable increase upon the reduced exports of last year, though the quantity is still considerably less than in 1880-81. There seems, however, to be some promise of the trade recovering, as a demand for short stapled cotton is said to have arisen in Lancashire. The entire cessation of exports to Austria is ascribed by the Collector to the fact that it was more profitable to ship through London than direct to Trieste. The exports of lac decreased by 18 per cent. in quantity and 20 per cent. in value. Excessive stocks of shellac are said to have accumulated, and the trade is not likely to revive till these have been worked off. Sugar shows an increase of 86 per cent., which would, it is said, have been still larger, but for the competition in the English market of beet sugar imported from Germany. The export of unmanufactured tobacco rose by  $143\frac{1}{2}$  per cent., but this was to some extent due to the belief that the rate of duty in Holland was likely to be raised.

19. The net imports of silver fell off by about a quarter of a lakh, and the net imports of gold by a little over eight lakhs. Neither the Board nor the Collector of Customs attempt any explanations of these variations. It may be assumed, however, that the decline in the imports of gold represents a decreased demand for articles of personal ornament, arising from the failure of crop. The people had less to spend, and purely luxurious expenditure was naturally the first to be reduced.

20. *Coasting Trade.*—The total imports of the coasting trade of Calcutta rose from Rs. 2,67,14,775 to Rs. 3,33,17,031; while the total exports fell from Rs. 5,00,27,422 to Rs. 4,73,38,813. Under the head of imports, cotton

twist and cotton piece-goods from Bombay show a remarkable increase, upon which the Collector remarks:—

“The advance in importations in five years is most marked, being over 100 per cent., while in comparison with 1874-75 the receipts have increased twenty-fold. The development of cotton manufactures in Bombay is no doubt the principal cause of this advance. The possibility of a war between France and China also caused a diversion of shipments from China to Calcutta, for heavy stocks accumulated at Hong-Kong and discouraged further importation. Competition between Lancashire and Bombay in low counts of yarn has practically ceased, the latter having, with the exception of a few thousand lbs, entirely supplied this market with yarns of 24s. and under. If the receipts from Bombay of grey twist and yarn continue to advance in the same proportion as they have for the last few years, they will very soon reach those from the United Kingdom as the following figures show:—

						1883-84.
						lbs.
From United Kingdom	...	...	...	...	...	8,384,166
Bombay	...	...	...	...	...	6,780,700,”

Pepper, sleepers, castor-seeds, and turmeric from Madras, teak-wood and cutch from British Burma, and rice from the Bengal outports are the only other items demanding special notice. The decline in exports occurred in shipments of rice, gunny-bags, sugar, cotton and foreign twist and piece-goods to Bombay Madras and Pondicherry. The exports to British Burma and the Bengal outports show an increase.

21. *Minor Ports, Chittagong.*—The total value of the foreign trade of Chittagong rose from Rs. 94,18,552 to Rs. 1,00,61,967, the value of imports rising from Rs. 2,65,999 to Rs. 3,15,191, and of exports from Rs. 91,52,553 to 97,46,776. As is usual, by far the largest proportion of the imports consists of salt, in which there was an increase of Rs. 89,556 during the year. The increase in the value of the exports occurs in all the chief articles exported, while all, except paddy and tobacco, show a decrease in quantity. A new branch of trade has been established with New York in jute cuttings, the value of which is said to be Rs. 4,85,245. In the coasting trade there was a total increase of Rs. 4,53,023, or 3 per cent., the details of which are of no special interest.

22. *The Orissa Ports.*—The value of the total trade of the Orissa ports rose during the past year by Rs. 25,83,095, or 21·6 per cent. Balasore made large shipments of rice to the Mauritius, the Maldives and Muscat; Cuttack sent rice to Colombo; and Pooree exported to Ceylon. At all of the ports the increase in imports was chiefly in gunny-bags, tobacco, cocoanut-oil and kerosine.

23. *Port of Naraingunge.*—The continuous improvement in the trade of this port, remarked upon last year, was arrested for the time being in 1883-84, the value of the trade showing a decrease of Rs. 1,02,244, or 1·2 per cent. “This,” the Collector of Customs observes—

“Is attributable to the failure of the cotton crop in Chittagong having affected the import trade as did the low prices of jute prevailing last year, the export. Messrs. David and Company, the largest importers of cotton, seeing no prospect of a remunerative business, made no imports during the year; jute was not exported in such large quantities direct to Chittagong, but sent to Calcutta instead, better prices being obtainable in the latter place; the outturn of the jute crop was also smaller than in the preceding year, a lesser area having been brought under cultivation, and there having been a partial failure of the crop owing to want of rain.”

Proposals are now under consideration for a rough survey of the channels of the Megna leading to Naraingunge, and should these prove to be navigable by sea-going vessels, a great development may be looked for in the trade of the port.

24. The Lieutenant-Governor's acknowledgments are due to the Board for their efficient administration of the Department during the year, and to Mr. Armstrong, the Collector of Customs, for a full and careful report. The names of the officers selected by the Board for commendation will be communicated to the Appointment Department.

By order of the Lieutenant-Governor of Bengal,

A. P. MacDONNELL,

Secretary to the Government of Bengal.



RESOLUTION ON THE REPORT OF THE COMMITTEE FOR THE  
MANAGEMENT OF THE CALCUTTA ZOOLOGICAL GARDENS  
FOR THE YEAR 1883-84.

REVENUE DEPARTMENT—MISCELLANEOUS—(F.)

*Calcutta, the 22nd December 1884.*

RESOLUTION.

READ—

The Report of the Committee for the Management of the Calcutta Zoological Gardens for the year 1883-84.

The total income of the Gardens during the year amounted to Rs. 52,398 against Rs. 41,149 in 1882-83, and the expenditure increased from Rs. 38,264 in 1882-83 to Rs. 52,277 in 1883-84. The figures for 1882-83 are exclusive of the special grant of Rs. 8,000 made by Government for iron railings round the Gardens, and the expenditure incurred on account of the same.

2. The receipts from donations and subscriptions show a further falling off as compared with the maximum income of Rs. 17,970 from those sources in 1879-80, and the minimum income of Rs. 1,500 in 1882-83. Only Rs. 550 were received under that head during the year of report, although the International Exhibition attracted to Calcutta a large number of wealthy persons from whom donations might have been expected. This amount consisted wholly of subscriptions from life members, and no donations, properly so called, were received at all. Such sources of income must, however, necessarily be exhausted sooner or later, and the Committee are doubtless right in assuming that they cannot count upon the future receipts under these heads doing much to place the finances of the Gardens upon a permanent basis.

3. In order to induce the public to take a more active interest in the management of the Gardens, and to contribute more largely to their maintenance, it was proposed by the Honorary Committee managing the Gardens that the donors and subscribers should be permitted to form themselves into a society to carry out the objects for which the Calcutta Zoological Gardens were established; that the management should be vested in a Committee on which the society should be represented by four members of their choice, and which should consist further of certain *ex-officio* members and any others whom the Government might nominate; that the Committee should be called the Council, and the members of the society, Fellows, with the privilege of using the letters F. Z. S. B. after their names. The Lieutenant-Governor accepted the proposal, and it has since received the sanction of the Government of India. The Committee were accordingly asked in March 1883 to frame the necessary articles of association under the Companies Act of 1882, and to forward them for the approval of Government. No action has, however, been yet taken in the matter by the Committee at whose instance the scheme was elaborated. The Lieutenant-Governor would be glad to learn from the Committee whether they still desire to proceed with it.

4. The total number of visitors to the Gardens during the year under report was 188,532 against 126,080 in 1882-83 and 130,826 in 1879-80, which was the largest number since the establishment of the institution. This increase is believed to have been due in part, at any rate, to two causes. In August 1883 some aborigines from the Andaman and Nicobar Islands were brought to Calcutta and lodged in the Gardens, and during the first month of their stay the average weekly number of visitors went up from 1,980 in July to 8,685 the next month. The Calcutta Exhibition, which attracted a large number of people from the mofussil, also increased the weekly attendance considerably. Although, therefore, a falling off in the total attendance, as compared with that of 1883-84, may be looked for during the current year, there is reason to suppose that the reduction of the entrance fee, which took effect in October 1882, will lead to a steady increase in the number of visitors as compared with the number in 1882-83.

5. The most interesting additions to the menagerie were two Himalayan bears from Mergui in Tenasserim. The donation is of special scientific interest owing to the fact that it affords the first authentic evidence of the occurrence of this species in the Mergui fauna. Two Sumatran double-horned

rhinoceri and a full grown female Malayan tapir were purchased at a cost of Rs. 4,500. Such animals are seldom brought to the Calcutta market for sale, and the Committee did well to take the opportunity of purchasing them.

6. Measures have at length been taken to carry out one of the main objects of the foundation of the Gardens by forming a dairy farm and the nucleus of a breeding establishment on the Begunbari grounds. This area has been reclaimed and fenced in; sheds have been built; nine heifers and one bull have been imported from Australia, and some fine hybrid stock has been produced by crossing country cows with Gyal bulls. In the Lieutenant Governor's opinion this is a most important and promising work, and if judiciously followed up, it may afford opportunity and justification for recognizing the Gardens as an institution contributing directly to the agricultural advancement of Bengal. In course of time the Agricultural Department now under formation will no doubt pay attention to the improvement of milch and plough-cattle; but before any such improvement can be attempted on a large scale, a long series of experiments will have to be made and possibly new breeds created. In this experimental stage, therefore, it seems to the Lieutenant-Governor that the Committee of the Zoological Gardens can render very valuable assistance. Among its members are several gentlemen whose scientific and practical attainments qualify them to undertake the task of improving the breed of cattle in Bengal; and it is admitted that by effecting even a commencement of such improvement, much would be done to solve the question of improving the agricultural system of the country. If arrangements could be come to whereby in this question of improving the breed of cattle the operation of the Committee of the Gardens could be co-ordinated, as it is hoped to co-ordinate the operations of the Agri-Horticultural Society in agricultural improvement with the larger operations of the Department of Agriculture, much good to the country at large would undoubtedly ensue. Such co-ordination would permit of the efforts of the Committee being supported to some extent by funds from the budget of the Agricultural Department, and it would also enable the Committee to choose for these experiments other localities and climates throughout these Provinces than the single locality in which the experiment is now commenced. If all the agencies for improving the agriculture of Bengal in its widest sense were thus brought into contact, and directed into paths of mutually supporting and harmonious action in connection with the Agricultural Department which will come into being with the commencement of the new year, much more of good is to be expected than from isolated action, impeded possibly by narrowness of funds. The Lieutenant-Governor desires that the Committee will now consider these proposals, and if they approve of them, will draw up a scheme for giving effect to them. It may be also desirable that the Director of Agriculture should be added to the Committee, in order that he may place before them his views as to the actual wants of the country from the point of view of his Department.

7. The Lieutenant-Governor has much pleasure in acknowledging the excellent work done by the Committee of the Gardens during the past year, and in thanking all the members for the time and labour they have devoted to what with the means at their disposal is a task of considerable difficulty.

By order of the Lieutenant-Governor of Bengal,

A. P. MACDONNELL,

*Secretary to the Government of Bengal.*



STATE AND PROSPECTS OF THE CROPS IN THE PRESIDENCY DIVISION.

IN continuation of the reports published in the Supplement to the *Calcutta Gazette* of the 17th December 1884, the following papers are published for general information.

A. P. MACDONNELL,

*Secretary to the Government of Bengal.*

No. 11M.A., dated Calcutta, the 11th December 1884.

From—A. SMITH, Esq., Commissioner of the Presidency Division,  
To—The Secretary to the Government of Bengal, Revenue Department.

IN continuation of my letter No. 10M.A. of the 30th November, I have the honour to submit copies of the Collector of Moorshedabad's No. 1368 of the 2nd, and the Magistrate of that district's No. 1763 of the 30th instant, with enclosures.

2. It will be seen from these reports that there is no present cause for anxiety in respect of any part of Moorshedabad. The worst tract described in the report is the Kulliangunge thanna, and since the Magistrate wrote his report I have received a demi-official, dated the 8th instant, from which I extract the following:—

"I came out last Tuesday, and have travelled through the Kulliangunge thana, in the Lalbagh sub-division. About this thanna I reported at the end of November that it was one of the worst tracts. That only 9 annas of the land (ordinary area) had been transplanted out, and that there would be only an 8-anna crop there. This was based on the report of the Sub-Divisional Officer of Lalbagh, and I now find that he was distinctly wrong. There is *certainly* an average of more than 8-annas for the whole thanna; but I won't go into the question at length, as you will learn what I have observed when you receive my diary, for more than half of the distance I travelled this morning; found fully a 12-anna crop (*amun* of course), and this on land where there has been in many years an utter failure on account of floods.

"I am now going to see thanna Khargaon and Gokurn, reported to be the worst in Kandy.

"Lots of rice is coming in from Beerbhoom and prices are easier.

"The more I see, the less I am inclined to think that any want will be felt; but I only bear in mind that it will be unwise to attempt to foretell what will happen. However, we are certainly safe for some time to come."

3. It is manifest from the reports, as I have said above, that there is no cause for present anxiety. With regard to the future, I am inclined to think that the Magistrate's growing disinclination to believe that any want will be felt will be justified by the results. There is no reason to suppose that the ordinary sources of labour will employ fewer men this year than in ordinary years. In respect of water-supply there is also no present reason to think that showers will do less than in ordinary years to replenish the tanks.

4. I will, if the Government has no objection, allow the *Magistrate* to submit his next report on the 1st January, instead of the 15th instant.

5. With regard to Nuddea, I have allowed Mr. Larminie to delay his report till the end of this week, to enable him to visit one or two places that remained to be inspected. I have, however, been with him to Chuadanga, to Kooshtea, and to Meherpore; and I am able to give the Government full assurance that in respect of that district there is also no present cause of anxiety. In Meherpore, which was the worst part of the district, the cold-weather crops are excellent. Not only are they excellent in quality, but the failure of the *aus* crops has permitted a much larger area than ordinary to be brought under cultivation.

No. 1368G., dated Berhampore, the 2nd December 1884.

From—H. FARRER, Esq., Officiating Collector of Moorshedabad,  
To—The Commissioner of the Presidency Division.

I HAVE the honour to submit the second fortnightly report for the month of November on the state and prospects of the crops, and the condition of the people in this district, in continuation of my report No. 1301G., dated 17th ultimo, on the same subject. I must express my regret, however, that I have not been able to fulfil the promise I made in my last report, that I would spend the whole of the second-half of the month in the interior. I left for the interior on the 19th ultimo, but was obliged to return on the 24th idem, as on the following day the election of Municipal Commissioners was to be held, and I thought my presence in Berhampore might be necessary. Moreover, I found that during my absence arrears of Collectorate work had accrued, as the officer whom I had to leave in charge is also in charge of the treasury and registration. I beg to observe that just at present there is one officer less than the usual staff here at this season of the year. I intend, however, to leave for the interior to-morrow without fail, and shall visit the thanna in the Lalbagh sub-division, where the prospect is most gloomy, or, at all events, least bright.

2. Although I was absent myself but a very short time, I succeeded in seeing a good deal. There having been no reports of suffering or scarcity from any other parts of the sudder division, I thought it advisable, as my time was short, to confine my observations to the places referred to by the Rev. Mr. Phillips, a Missionary of Berhampore, who had addressed a number of letters to the *Englishman* newspaper of late, in which he alleged that severe want was being felt by the people of Morjanpore, a village in the Burua thanna, by the residents of Saktipore, Basara and Ramnagore villages, in the Saktipore outpost, and by the people of a number of villages named by him, which are within the jurisdiction of Burua thanna and lie not far north of Plassey. Saktipore, Basara, and Ramnagore are on the west bank of the Bhagiruthee river, and therefore in the Kandy sub-division. From the observations that I made during my visits to these places, I am fully satisfied that Mr. Phillips has been led into error by the representations of persons who have exaggerated all the facts and circumstances from motives not always disinterested. Thus the object of the people in the villages he names on the west bank of the Bhagiruthee is to have an embankment constructed by the side of the Babla river—a question which I am told has again and again been raised and considered. The persons interested of course think this a favourable opportunity for again pressing the case. At Saktipore the *amun* is fully a 12-anna crop, and the *rubbi* crops all promise well. Hence complaints from that village are groundless, and I may mention that their truth has been carefully tested, as earthwork was begun here on the Ramnagore-Dhulian road (*vide* list of roads appended), and although there were as many as 207 labourers at work on the 19th November, the number afterwards fell off rapidly, until the 25th idem, when only 54 men remained. I may also mention that, according to the rates that are being paid by the District Committee, an able-bodied labourer can earn from 2½ to 4 annas a day. Surely there cannot be want if labourers cannot be had in any great number, when each could, by ordinary industry, earn so much as this daily.

3. Ramnagore and Basara are on the west bank of the river, and almost opposite Plassey. There the *amun* crop is not so good, but the people depend more upon *aus* and *rubbi* crops (including mulberry). The yield of the *aus* was from 6 to 8 annas; but all the *rubbis* except *kalai* are doing excellent. *Kalai* has been damaged to some extent by caterpillars (*suapokas*), but there is still reason to expect a crop of something like 10 or 12 annas, and other *rubbi* crops ought to yield a still higher outturn. I found that very few persons from villages in the neighbourhood had gone to work on our road at Saktipore, although the distance was not more than four or five miles.

4. I next visited the village of Morjanpore near Burua thanna, where the *amun* crop has to some extent failed. I found that the whole of the land that had not been transplanted with *amun* was being sown down with *rubbi* crops of various kinds. Many of these were already above the ground, and seemed to be doing remarkably well. I joined you at your camp at Lokenathpore on the 22nd November. This place is on the boundary between this district and Nuddea. From Lokenathpore I returned to Berhampore, enquiring on my way more particularly into the condition of the people of Beldanga and the surrounding villages, as I found that they had presented a petition to you complaining of their sufferings. Here, too, I found the same absence of testimony to show that actual want and suffering were being acutely felt. In the physical appearance of the people there was nothing to indicate this, although times are certainly hard. The pinch is naturally felt most by the cripples, lepers, blind, aged and infirm, who in all years have to subsist on charity. Even in the appearance of these persons, however, there was nothing out of the ordinary; nor did the number of beggars appear to be larger than usual. During all my enquiries, I found one family only the members of which were suffering from want of sufficient food. But I must describe the case: one man, himself weakly as to constitution, had to support a wife and three young children, the widow and three young children of a deceased brother, another brother lying on a sick bed, and his wife and two young children. Thus, three women and eight children were dependent on him for support. It was a Mussulman family, and the women would therefore not go out and work on the roads. It was evident from the appearance of the children that they were not receiving sufficient food for the maintenance of health; but this would have been nearly the same in years of plenty, as with rice at 25 seers for the rupee one man could not have earned enough to feed a large family like this.

5. In dealing with this particular tract of country, I may appear to have been more discursive in my remarks than the nature of this report warrants; but I beg to explain that I have been led to do so because it was from this quarter that Mr. Phillips gathered his "ounce of fact," and it is my duty to show that he not only got short weight, but had material as well. In his last letter to the *Englishman* newspaper, dated the 15th November, he named a number of villages where he stated that want was so severely felt that immediate relief was necessary. I have had a careful and exhaustive enquiry made there, and find that in three of the villages named, Rejinapore, Bikalnagore, and Janpore, there will be over a 12-anna crop. Hence, want will never be felt there at all. It is thus also evident that Mr. Phillips had very little knowledge of his subject.

6. I may now begin to deal with the sudder division of the district generally. This comprises the following thannas:—

Sujagunge.	Hariharpara.
Gorabazar.	Jellinghec.
Dowlatabad.	Burua.
Gowas.	Nowada.



Regarding the prospects in all of these thannas, I have consulted a number of persons, both officials and non-officials, and they one and all agree in saying that there certainly is present no distress; but while they hesitate to say to what extent want may be expected after February or March next, they consider that a tolerable expansion of the work under the control of the District Road Cess Committee would afford quite sufficient relief. Mr. Pratt, District Superintendent of Police, was good enough, at my request, to visit thannas Dowlatabad, Gowas, and Jellinghee, and has submitted copious notes on the condition of the people there, the outturn of the last *aus* crop, the state of the *amun* rice, and the prospects of the *rubbi* crops. The Sudder Sub-Deputy Collector has also visited thannas Hariharpara and Jellinghee. As regards Nowada thanna, there has never been any cause for anxiety, as a very large portion of the *kalantar*, or low-lying tract of country, lies within that jurisdiction, and there almost a bumper crop of *amun* is expected.

7. Mr. Pratt's experiences have throughout corresponded with mine. The country he travelled over consisted mostly of *aus*-producing land. Both he and the Sub-Deputy Collector estimate that the yield of the *aus* crop was between 4 and 8 annas. The yield of the *amun* crop will approximate to 6 annas. All the *rubbi* crops have been most extensively sown, including wheat and mulberry.

Although considerable damage has been done by the caterpillar to *kalai* and other pulses, the prospects of the *rubbi* crops are excellent, and if these prospects continue unimpaired, the outturn from these crops will, to a great extent, recoup the cultivators for the partial failure of the *aus* and *amun*. While the price of rice was high, 12 and 13 seers for the rupee, there was some pinching, and many persons were in need of employment, and this they found on the road repair works under the District Committee. Prices are now easier, and it is believed that rice will shortly be procurable everywhere at the rate of 15 or 16 seers to the rupee. No cases of suffering came to the notice of either the District Superintendent or the Sub-Deputy Collector.

8. Surjagunge and Gorabazar are the thannas in the immediate neighbourhood of Berhampore. They are ensured against famine, as any cases of real suffering will find relief from the charity of the Maharani Sarnomoyi of Cassimbazar. But here also there was no absolute failure of the crops. The yield of the *aus* was over 4 annas; the *amun* will be more than a 6-anna crop, and no one remembers the time when *rubbi* crops were so extensively sown and promised so excellent an outturn.

8½. Thus, speaking of the sudder sub-division generally, it appears that, although the *aus* and *amun* crops partially failed, yet *rubbi* crops have been most extensively sown, and so far they promise well. There has been a greater demand for labour than in ordinary years, but this demand has been sufficiently met by the District Road Cess Committee from the funds at their disposal. The time of reaping the *amun* harvest having now arrived, there is a smaller number of labourers at work on the district roads, but when that work is over, and the *rubbi* crops, too, have been reaped, there will again be a number of persons in search of employment.

9. I think that the tract which has suffered most from the scantiness of the rainfall has now been determined. This is a strip of country extending south from Berhampore station to the limits of the district in that direction, of a breadth of from three to five miles measured from the Bhagiruthee river. Here the level of the land is peculiarly high and *aus* is the principal crop. The land being on a higher level than that further distant from the river, that crop suffered more severely from the scantiness of the rainfall. I doubt whether the yield on this tract was so much as 4 annas. Very little *amun* can be grown in any year. The *rubbi* crops, however, have, as elsewhere, been extensively sown, and are doing tolerably well, but the caterpillar unfortunately has done considerable damage. I think that a great many persons within this area must have work to keep them going for a portion of the year. If the district fund be supplemented, sufficient employment could be provided.

10. *Lalbagh sub-division.*—The thannas in this sub-division are:—

Shahannagur.  
Manullabazar.  
Bhogwangola.

Kalyangunge.  
Sagardighi.  
Asanpore.

Of these Shahannagur, Manullabazar and Asanpore are semi-municipal, and the Azungunge terminus is situated in the last of the three. The people, therefore, are not entirely dependent on agriculture, and distress has therefore never been apprehended.

11. In the Bhogwangola thanna the *amun* rice is a very small factor, *aus* and *rubbi* being the principal crops. There was a 5-anna crop of *aus*, and this being considerably short led to a very extensive cultivation of *rubbi* crops of all kinds. These, with the exception of *kalai* and *titi*, are doing remarkably well. In the first instance the *kalai* was swamped by a late inundation, and subsequently both that crop and *titi* were attacked by caterpillars. They have, however, been only partially damaged. With a good *rubbi* crop this thanna will be safe.

12. The remaining two thannas of this sub-division, Sagardighi and Kailiangunge, are on the west bank of the Bhagiruthee, and therefore in the *rarh* country. Very little *aus* is grown here, nor is the soil suitable for producing *rubbi* crops. *Amun* rice is the crop on which

the people almost entirely depend. In Sagardighi there was a little *aus*, which yielded at the rate of 6 annas a bumper crop. The *amun* rice, taking the whole thanna together, is an 8-anna crop. In this thanna therefore we have nothing to apprehend.

B.—13. Unfortunately the prospects in the Kalliangunge thanna are far from being favourable. Not more than 8 or 9 annas of the whole rice-producing area was transplanted out, and on this area there will not be more than an 8-anna crop. Thus, compared with a bumper crop of ordinary years, there will be only a 4 or 4½-anna crop this year: and it is reported that there are from 12 to 15 villages where very little rice at all will be reaped, and there some relief in the form of employment will be necessary after February next. *Rubbi* crops have not in other years been grown within this thanna, but several kinds are now being tried on the lands where, from want of rain, the *amun* rice was not transplanted. It seems a pity that these experiments should have to be made at the time when the ryots can least afford to make them.

14. *Janjipore sub-division*.—This sub-division comprises the following thannas:—

Dewansarai.	Suti.
Raghunathgunge.	Mirzapore.
	Shamshergunge.

Regarding Raghunathgunge there need not be the slightest cause for anxiety, as the people there depend to a great extent on the silk industry, the prospects of which, although not very bright, do not portend disaster.

15. The people of Shamshergunge and Dewansarai chiefly depend on the *bhadoi* or *aus* and the *rubbi* crops. It is estimated that the former gave a 6-anna yield, that is to say, half as much again as Mr. Veasey estimated it to have been in his first report on this subject. Full information had not come to hand at the time when that report was drafted. Although here also the *rubbi* crops have been very extensively sown in order to make up for the short outturn of rice, there condition is not so good as elsewhere, the *kalai* in particular being reported as almost a failure. The first sowings were swamped by a late inundation and the new crop that was put in was attacked and almost destroyed by the same caterpillar as has done as much mischief elsewhere. Nevertheless the Sub-Divisional Officer estimates that there will be an 8-anna *rubbi* crop; and from other information I have received, I am inclined to think that the outturn will be even higher, as the Sub-Divisional Officer does not appear to have taken sufficiently into account the expansion of the area under *rubbi* this year.

16. The prospects in thanna Suti are not quite so favourable, especially in those villages where the people are chiefly dependent on the *haimunt* or *amun* rice crop. Yet I think that the ordinary labour supplied by the District Committee would grant sufficient relief here.

C.—17. There is a likelihood of some distress being felt later on in parts of the Mirzapore thanna, which lies in the Rarh country on the west bank of the Bhagiruthee. Generally speaking, the soil of this thanna is suitable for the production of one crop only—*amun* rice. The sub-divisional officer gives a list of twelve mouzabs where he says this crop has entirely failed, and names nine more mouzabs where the failure is almost complete. Elsewhere in the thanna there is a fair crop, and indeed in many villages the outturn will be excellent. The people of the villages where the crop has failed have been obtaining employment on our district roads in that quarter, and many of them are now engaged as labourers in the work of reaping the rice elsewhere. It seems evident that we shall have to provide labour in some form for a certain number of persons in this thanna until next rainy season; but for the immediate present, quite enough is being done, as so many persons are finding employment in reaping the autumn rice. There, as elsewhere, there is a falling off in the number of labourers in our roads for this reason, and I think the number will not begin to increase again before February next.

18. Taking this sub-division as a whole, we expect a 5-anna *amun* crop at least; and so far the prospects of the *rubbi* crop are very good, and the sowings unusually extensive. So far as there has been serious failure of the rice crop, that failure has been confined to few villages only; and for the relief of the people affected, when relief becomes necessary district road work on a somewhat extended scale in comparison with other years will be sufficient, assuming that other forms of employment of labour and expenditure of money are not deemed by Government to be more desirable.

#### *Kandy sub-division.*

19. The following thannas are comprised within this sub-division:—

Kandy.	Khargaon.
Bharatpore.	Gokurn.

The whole of the sub-division lies on the western bank of the Bhagiruthee, and therefore in the country known as the Rarh. The principal crop of the year is the *amun* rice. There is very little *aus* cultivation, but in thannas Bharatpore and Gokurn the ratio of the relative importance of *rubbi* and *amun* is as 1 to 3. In thanna Khargaon the ratio is only as 1 to 7. I mention this fact here because the *rubbi* crop throughout the sub-division promises to yield an excellent outturn.



20. After taking into consideration the contraction of the area under *amun* rice this year, as well as the defective yield of what has been transplanted out, the sub-divisional officer has arrived at the following estimate regarding that crop:—

Thannas.	Annas.
Bharatpore	10½
Kandy	9
Khargaon	5
Gokurn	4

Mulberry is included along with the *rubbi* crops, and is very extensively grown in thannas Gokurn and Bharatpore, within each of which there are five silk filatures. The Sub-Divisional Officer nevertheless finds that employment will be necessary for five or six months from March next for about 24,000 persons. I am unable to accept his conclusions; as he begins by estimating the number who live by labour alone as one-third of the whole population—a very high estimate indeed for a thinly-populated tract of country; and in the next place he has included amongst those who must have labour all the women and children as well as the adult males. I shall endeavour to have a conference with this officer before the end of the present month in order that expression may be given to his views with greater precision and accuracy.

D.—21. It does, however, appear there will be a considerable supply of labour from thannas Gokurn and Kandy. In thannas Bharatpore and Khargaon there will also be some persons in need of employment, because, although the crop is good, in some villages it has failed, or almost failed in others. However, Gokurn and Kandy are the thannas that will need the most attention, but even here there is no immediate cause for anxiety, as it is not apprehended that any work to grant relief will be necessary before March next, and I further sincerely believe that none of us is in a position to say to what extent it will then be necessary to provide employment for the needy.

22. For the sake of convenience, I will here recapitulate the statement of the tracts likely to be most affected.

A—*Sudder division*.—The tract of country south from Berhampore, varying in breadth from three to five miles, lying along the east bank of the Bhagiruthee river. This strip lies chiefly in the Burua thanna, but partly in Gorabazar.

B—*Lalbagh*.—Portions of the Kulliangunge thanna in the sub-division of Lalbagh, owing to the failure of the *amun* rice.

C—*Junjipore*.—Portions of thanna Mirzapore, where *amun* rice alone can be grown. In a considerable number of villages that crop has failed or is a partial failure.

D—*Kandy*.—Thannas Gokurn, Kandy and Khargaon within the Kandy sub-division, where, however, the extent to which labour will have to be provided still remains to be determined.

23. Outside these tracts there may be, and doubtless are, villages here and there where people reside, who will need labour later on. All, however, whom I have consulted, both officials and non-officials, are unanimous in thinking that at present there is no distress, and that it will not be necessary to give an expansion to the usual means of employment before March or, perhaps, February next. Meantime our observations can be continued and verified, and the extent to which employment will have to be provided can be determined. In support of my conclusion that at present ample means of employment are being provided on the district roads, I beg to submit a figured statement, showing the number of labourers on each of our roads under repairs day by day between the 10th and 25th of last month (November). It will be seen that, although the total number rose to 1,213 on the 18th, it fell off rapidly until the 25th, on which date only 436 persons were at work, and in considering this statement it should be borne in mind that, as I have previously stated, an able-bodied labourer can earn from 2½ to 4 annas a day working at the rates we pay. I attribute the falling off in the number of labourers to two causes—(1) the price of rice is gradually falling throughout the district, the rate for common rice in Berhampore being 14 seers for the rupee, and all other articles of food, especially wheat, are cheap; (2) the reaping of the *amun* rice crop has created a demand for labour, more particularly in the *kalantar* country, which lies in thanna Burua and Nowada, where there is a heavy crop; and the silk filatures are now everywhere being opened. For a few months, then, we may be free from anxiety.

24. Another figured statement appended to this report shows the expenditure on district roads up to date. From this it will be seen that over Rs. 6,000 have already been expended, of which almost Rs. 4,000 were paid away during November alone. The road cess fund of this district is a very small one in comparison with the burden it has to bear in all years, for this being an old district is very rich in roads. The amount available for public works each year is between Rs. 40,000 and Rs. 45,000 only, and out of this from Rs. 10,000 to Rs. 12,000 have to be reserved each year on maintaining the metalled road

from Berhampore to Jeagunge and Bhogwangola, and the repairs on that road can only be executed in the rainy season. We have thus less than Rs. 35,000 this year to expend on the cutcha roads, which are almost 700 miles in length. About one-fifth of this sum (less than Rs. 35,000) has already been expended; and if therefore there be a rush of labourers to the work we provide during and after February next our means will soon be exhausted. I think we must be prepared to meet a demand for employment very much in excess of that of other years, and it will be necessary to provide employment to relieve want among the labouring classes.

25. The Sub-Divisional Officers recommended the re-excavation of old tanks and the repairs of all our roads. In one or two cases it is recommended that new roads should be constructed. The agitators are mostly in favour of the construction of the Ranaghat-Bhogwangola Railway; but in my humble way I would deprecate the commencement of that work. So far as its industries are concerned, this is a declining district, and therefore the goods traffic over this line could not be but light. The population is not dense, and therefore the passenger traffic would not be heavy; and for five months of the year the line would have to compete with the river traffic on the Bhagiruthee to the west and the Jellinghee to the east. I will, however, grant that it might bear off some of the produce of the Rajshahye and Maldah districts.

But there is another objection. The completion of the work will be very costly. Assuming that it is conducted this year only so far as it is found necessary to keep relief works open, when may we hope for its completion? If it will not be possible to push on the work in subsequent years, there will be nothing to show for the expenditure but a heap of earth of no value, convenience, or utility whatsoever.

26. I therefore would respectfully beg to suggest that the district road fund be supplemented to such an extent as the actual requirements of the district, to be hereafter determined, would seem to justify. In consequence of the inadequacy of the district fund a great many useful roads have fallen into lamentable disrepair. The present year seems to be a most favourable opportunity for bringing these once more thoroughly into order. I would also recommend some expenditure on the re-excavation of old tanks, or on the excavation of new ones, and in connection with this subject I may refer to the relative state of the crops in thannas Sagardighee and Kulliangunge in the Lalbagh sub division. In the former *thanna* the prospects are tolerably good in consequence of irrigation from tanks; whereas the latter *thanna* is one of the tracts where want will be most felt, the reason being that all the tanks have silted up and irrigation from them was impossible. These two thannas lie north and south of each other.

27. Out of the funds of the Cossimbazar Estate under the Court of Wards, a sum of Rs. 2,424 will be expended over tanks and wells; and I purpose applying for sanction to expend a further sum of about Rs. 4,000 on the same object.

28. There is no reason to apprehend a scarcity of fodder. On the contrary, the supply will be abundant if we have a few showers of rain from time to time during the cold season and again in March, as there is more grazing land than usual. Cattle at present appear to be in fairly good condition.

29. There will be some difficulty felt later on as regards the water-supply, and this may affect injuriously the health of the public. For this there is little or no remedy, as tanks now excavated would be of no service until after the next rains, and wells would be little better. We must wait and hope for rain. Rain in February next would remove all anxiety under this head.

30. The stocks of old rice in the district are insignificant, even if we include the out-turn of the last *aus* crop. The *rubbi* crops, however, will compensate for this, if the yield be as good as we now have a right to expect it to be. At all events, there is no cause for entertaining anxiety as regards any quarter of the district for the next two months or so, and the apprehensions of the alarmists are, I think, subsiding. The *amun* crop is after all not so bad as was at one time anticipated. The *rubbi* is an excellent crop, taking the district as a whole; mulberry, too, is a good crop, although it certainly is selling very cheap: the price of rice is falling, and a further fall is expected, and all other food staples are cheap and plentiful.

31. I have observed that the first demand is not for labour, but for gratuitous relief, and in one place it was actually suggested to me that private distributions of food should be made from house to house. I can say with confidence that the circumstances which would justify the bestowal of gratuitous relief by Government are very remote indeed from the circumstances that do actually prevail. The District Superintendent, the Sub-Divisional Officers, and myself have endeavoured to stimulate the efforts of private charity, and there are indications to show that there has been some expansion. Of course, all who go daily to the Rajbati at Cossimbazar receive doles, and the number now is considerably greater than it was in former years. The majority of these, however, are professional beggars.

32. As there is no immediate cause for anxiety in this district, I would respectfully suggest that you permit me to submit the next report at the end of December, as there would be little, if anything more, to add at the middle of the month.



Statement showing the number of coolies employed from 10th to 25th November 1884, on the several district roads that are at present under repairs.

NAMES OF ROADS.	10th November.	11th November.	12th November.	13th November.	14th November.	15th November.	16th November.	17th November.	18th November.	19th November.	20th November.	21st November.	22nd November.	23rd November.	24th November.	25th November.
Beldanga to Mojmupore road...	6	6	6	18	15	2	4	8	5	36	24	16	6	6	4	...
Krishnagar road (from Berhampore to beyond Lokenathpore) ...	192	171	173	200	249	268	311	232	159	169	161	240	244	102	20	...
Jellinghee road (from Chunarua to Jellinghee) ...	81	81	81	81	81	81	81	81	81	81	81	...	...	...	...	...
Baromana road (from Islam-pore to Lotial) ...	29	29	29	29	29	29	29	29	29	29	29	...	...	...	...	...
Baranasia to Katlamari road ...	18	18	18	18	18	18	18	18	18	18	18	...	...	...	...	...
Baranasia to Jellinghee road ...	30	30	30	30	30	30	30	30	30	30	30	...	...	...	...	...
Kharason to Paroolia road ...	39	35	27	51	57	40	23	9	8	...	...	...	...	18	17	...
Kandy road (from Radhaghat to Koolia) ...	61	84	87	122	174	313	388	385	412	17	66	78	84	86	79	78
Kooly to Bilgram road ...	19	25	35	24	29	27	10	28	12	...	16	16	7	13	15	14
Radshahi road ...	...	7	7	...	...	...	...	...	...	...	...	...	...	...	...	...
Jungipore to Khamra road ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	28	31
Ditto to Mettrapore road ...	55	45	61	62	...	58	...	62	44	36	68	34	38	45	47	20
Ditto to Bokra ...	167	202	227	...	119	...	181	195	214	202	116	85	105	104	104	83
Kandy to Shakrupa e road ...	48	39	57	47	60	34	25	21	8	7	7	...	...	13	21	23
Kulu to Nowgram road ...	...	...	...	...	8	5	6	15	20	21	21	22	20	28	15	13
Ramnagar to Dhoolian road (towards Shat-hupur) ...	...	...	...	...	...	...	...	...	111	207	157	152	138	147	80	54
Ramnagar to Dhoolian road (Jungipore side) ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	36	55
Kandi to Panku road ...	...	...	...	...	...	...	...	...	...	...	...	11	13	12	12	13
Mankura road (from Gorabazar to Mankura) ...	37	40	48	90	45	...	...	...	...	63	85	16	...	...	...	...
Old Calcutta road (from Per-tola to Bhapti) ...	...	...	34	...	...	...	...	...	...	...	...	...	...	...	...	...
Patkabari road (from Gorabazar to Patkabari) ...	53	29	13	13	...	...	...	...	...	...	...	...	...	...	...	...
Patchgaon to Foolbaree road ...	...	12	59	74	...	...	...	62	62	55	22	51	14	15	24	52
Village road from Nowgram to Sauoorul ...	...	...	...	...	...	...	...	...	...	...	21	4	9	...	...	...
	835	853	902	859	889	905	1,108	1,195	1,213	971	916	725	678	592	502	463

\* These four roads are being repaired by petty contractors. They did not report the exact number of coolies who worked each day. The average number of coolies as reported by them has therefore been shown.

S. K. PUNDIT,

District Engineer, Moorshedabad District.

Statement showing the expenditure incurred from the 1st of October to 29th November 1884 on the several district roads that are at present under repairs.

NAMES OF ROADS.	Amount allotted.	Amount expended on previous month (October).	Amount expended during the current month (November).	Total.
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
Bhogwangola road (from Berhampore to Bhogwangola and a branch to Jeangunge chat) ...	9,827 0 0	98 7 9	297 8 6	396 0 3
Jellinghee road (from Chunarua to Jellinghee) ...	1,651 0 0	...	...	...
Kandy road (from Radhaghat to Koolia) ...	1,499 0 0	325 6 6	568 8 9	893 15 3
Jungipore to Mittrapore road ...	842 0 0	251 3 0	243 4 9	494 7 9
Gorabazar to Mankura road ...	126 0 0	24 6 0	0 6 0	24 12 0
Pooranaduendrea to Murcha road ...	1,466 0 0	...	105 11 3	105 11 3
Krishnagar road (from Berhampore to beyond Lokenathpore road) ...	1,253 0 0	1 2 0	488 5 3	489 7 3
Ramnagar to Dhoolian road ...	3,228 0 0	1 0 0	305 12 6	396 12 6
Jungipore to Khamra road ...	1,483 0 0	...	36 15 9	36 15 9
Jungipore to Khamra road ...	142 0 0	5 11 3	60 14 0	66 9 3
Beldanga to Mojmupore road ...	259 0 0	...	67 7 9	67 7 9
Jungipore to Khamra road ...	221 0 0	17 2 6	19 9 0	36 11 6
Old Calcutta road (Peertollah to Bhapti) ...	1,638 0 0	...	358 12 9	238 12 9
Patkabari road (from Gorabazar to Patkabari) ...	1,771 0 0	633 13 6	144 1 0	777 14 6
Radshahi road ...	1,211 0 0	265 5 9	104 11 9	370 1 6
Patchgaon road (from Dahepara to beyond Patchgaon) ...	454 0 0	...	1 8 3	1 8 3
Berhampore station roads ...	210 0 0	...	14 15 6	14 15 6
Purhanund to Gobranullah road ...	311 0 0	3 2 6	...	3 2 6
Chadpore to Kankuria road ...	516 0 0	223 2 3	179 5 3	402 7 6
Kuxaon to Purulia road ...	866 0 0	22 11 9	94 12 6	117 8 3
Kandee to Saktipore road ...	957 0 0	24 1 9	75 7 0	99 8 8
Kulu to Bilgram road ...	450 0 0	0 12 0	11 1 0	11 13 0
Kulu to Nowgram road ...	777 0 0	...	566 1 0	565 1 0
Jungipore to Bakra road ...	120 0 0	...	91 9 6	93 9 6
Arol and Beldanga roads (thanna Barooah) ...	170 0 0	...	54 10 3	54 10 3
Patchgaon to Foolbaree (thanna Kulliangunge) ...	100 0 0	36 13 6	6 2 6	43 0 0
Nowgram to Kulliangunge and thence to Gokurn (thanna Kulliangunge) ...	70 0 0	51 9 6	33 12 0	55 5 6
Mohandee to Jettari (thanna Gokurn) ...	40 0 0	11 14 3	14 3 6	26 1 9
Gokurn village road (thanna Gokurn) ...	200 0 0	300 1 0	...	300 1 0
Chatpore to Gokurn ...	40 0 0	40 1 0	...	40 1 0
Chatpore village road ...	784 0 0	...	12 1 9	12 1 9
Kany to Panku road ...	...	...	...	...
Total	33,639 0 0	2,337 15 9	3,938 11 0	6,276 10 9

S. K. PUNDIT,

District Engineer, Moorshedabad District.

*Extract from the District Superintendent's Inspection Memorandum of Azimgunge Outpost, dated 30th November 1884.*

This outpost is, roughly speaking, four miles square in area. It is essentially an *aus*-dhan and *rubbi* country. *Amun*-dhan is grown very little, not one anna of the land under cultivation.

The head-constable, who knows the rest of Jellinghee, says that the land of the whole thanna is of the same description as that of his outpost.

*Aus*-dhan was sown to the same extent as in former years. The yield was, however, poor, owing to scanty rainfall, not more than 6 or 8 annas having been realized.

What little *amun* is grown is on bil lands and is *good*—not quite a bumper crop, but nearly so.

There is a deal of mulberry grown all over Jellinghee, and it is good.

About 1½ annas of the cultivated tract is under jute, which has been exceptionally good this year.

A very large amount of indigo is grown. The factories are:—

- |                |                    |
|----------------|--------------------|
| 1. Domkole.    | 4. Sahebrampore.   |
| 2. Subdulpore. | 5. Ramchundrapore. |
| 3. Katakopore. | 6. Hookahara.      |
| 7. Baramasia.  |                    |

All belong to Watson concern. The silk factories are:—

- |               |               |
|---------------|---------------|
| 1. Kaligunge. | 2. Faridpore. |
| 3. Bagdanga.  |               |

also belong to Watson and Company. These factories are managed by English gentlemen, who doubtless would bring to notice distress should there be any. The land, say, 12 annas of the thanna area which was under *aus*, is now under *rubbi*, and all the cold weather crops promise well.

About 3 annas of this 12 annas is, however, under *kalai* and *moogh*. Half has suffered severely from caterpillars "*soopokas*" and half was entirely destroyed by the late inundation. The latter lands have, however, been re-cultivated, and are now under *rubbi*.

The cultivators are said to be very hard up owing to the partial failure of the *aus* crop.

Many have gone into Rajshahye for the *amun* harvest. Poor people go in ordinary years, but this year more than usual have gone. A few persons have applied to the police for work, and this has been provided for them on the roads. The head-constable says four or five came to him.

I have known them go as far as Mymensingh in search of work in ordinary years.  
2-12-84. H. FARRER.  
O. M.

I believe this is the case everywhere in the district, that those who wanted labour have found it on the roads.

H. FARRER.  
O. M.

† Kangal means a poor and helpless person.

H. FARRER.  
O. M.

The head-constable says that on Sundays a great many paupers come into Azimgunge to be fed. This year they are in excess of those of other years, and that women preponderate.

They are *Kangals*,† but have become weak and have taken to begging through want.

The death register of the outpost shows in 1884 up to date:—

January	...	33 deaths.
February	...	50 "
March	...	138 " (78 of them were from cholera).
April	...	176 " (143 from cholera).
May	...	59 " (22 from cholera).
June	...	21 " (cholera ceased).
July	...	29 " { ditto. 1 case small-pox.
August	...	41 " (fever prevailed).
September	...	32 " (ditto).
October	...	54 " (48 from fever).
November	...	60 " (only one from bowel-complaint; most from fever).

Rashomai Basu, the chief pleader of the munsif's court, was good enough to let me question him about the state of the country and crops.

He says that probably as soon as the *rubbi* is cut, all distress will vanish. He does not think any relief is or will be needed. He says that on Sundays 250, and on other days 100 *Kangals* come in for charity—about double the number in previous years. Private charity provides for these, and some go to Cassimbazar for the daily charity given to all-comers by the Rani Sarnomoyi.

He says that it is customary for the cultivators of Jellinghee to go to Rungpore and Rajshahye for the *amun* dhan harvest.

As far as I can see, the Government need not have the slightest anxiety about the thanas of Doulatabad, Gowas, and Jellinghee, regarding which I have made personal enquiries.

I also had a visit from Baboo Gopi Mohun Mukerji himself. This gentleman agreed in thinking there is little chance of any relief measures being needed.

No. 1763, dated Berhampore, the 3rd December 1884.

Memo. by—The Magistrate of Berhampore.

Copy forwarded to the Commissioner of the Presidency Division for information.



**EXEMPTION FROM RE-MEASUREMENT IN HER MAJESTY'S DOMINIONS OF BELGIAN VESSELS, THE TONNAGE OF WHICH IS DENOTED IN THE CERTIFICATES OF BELGIAN NATIONALITY OR REGISTRY ISSUED AFTER 1st JANUARY 1884.**

No. 2124, dated Calcutta, the 12th December 1884.

NOTIFICATION—By the Government of India, Department of Finance and Commerce.

The following Order in Council, exempting from re-measurement in Her Majesty's Dominions Belgian vessels, the tonnage of which is denoted in the certificates of Belgian nationality or registry issued after the 1st January 1884, is published for general information:—

**AT THE COURT OF BALMORAL.**

*The 17th day of October 1884.*

PRESENT:

THE QUEEN'S MOST EXCELLENT MAJESTY IN COUNCIL.

Whereas by "The Merchant Shipping Act Amendment Act, 1862," it is enacted that, whenever it is made to appear to Her Majesty that the rules concerning the measurement of tonnage of Merchant Ships for the time being in force under the principal Act have been adopted by the Government of any Foreign Country, and are in force in that Country, it shall be lawful for Her Majesty, by Order in Council, to direct that the ships of such Foreign Country shall be deemed to be of the tonnage denoted in their Certificates of Registry, or other national papers; and thereupon it shall no longer be necessary for such ships to be re-measured in any port or place in Her Majesty's Dominions, but such ships shall be deemed to be of the tonnage denoted in their Certificates of Registry, or other papers, in the same manner, to the same extent, and for the same purpose, in, to and for which the tonnage denoted in the Certificates of Registry of British ships is to be deemed the tonnage of such ships:

And whereas it has been made to appear to Her Majesty that the rules concerning the measurement of tonnage of Merchant Ships now in force under "The Merchant Shipping Act, 1854," have been adopted by the Government of His Majesty the King of the Belgians, with the exception of a slight difference in the mode of estimating the allowance for engine-room, and such rules are now in force in that Country, having come into operation on the 1st day of January 1884:

Her Majesty is hereby pleased, by and with the advice of Her Privy Council, to direct as follows:—

1. As regards sailing ships, that merchant sailing ships belonging to Belgium, the measurement whereof on or after the said 1st day of January 1884 shall have been ascertained and denoted in the Certificates of Registry, or other national papers of such sailing ships, testified by the dates thereof, shall be deemed to be of the tonnage denoted in such Certificates of Registry, or other national papers, in the same manner, and to the same extent, and for the same purpose, in, to and for which the tonnage denoted in the Certificates of Registry of British sailing ships is deemed to be the tonnage of such ships.
2. As regards steam-ships, that merchant ships belonging to Belgium which are propelled by steam or any other power requiring engine-room, the measurement whereof on or after the said 1st day of January 1884 shall have been ascertained and denoted in the Certificates of Registry, or other national papers of such steam-ships, testified by the dates thereof, shall be deemed to be of the tonnage denoted in such Certificates of Registry, or other national papers, in the same manner, and to the same extent, and for the same purpose, in, to and for which the tonnage denoted in the Certificates of Registry of British ships is deemed to be the tonnage of such ship, provided, nevertheless, that, if the owner or master of any such steam-ship desires the deduction for engine-room in such ship to be estimated under the rules for engine-room measurement and deduction applicable to British ships, instead of under the Belgian rules, the engine-room shall be measured, and the deductions calculated, according to the British Rules.

C. L. PEEL.

D. BARBOUR,

*Secretary to the Govt. of India.*

**RESOLUTION ON THE REPORT OF THE ADMINISTRATION OF  
THE HOOGHLY BRIDGE FOR THE YEAR ENDING  
31ST MARCH 1884.**

GOVERNMENT OF BENGAL.

PUBLIC WORKS DEPARTMENT—COMMUNICATIONS.

*No. 2103C., dated Calcutta, the 17th December 1884.*

**READ—**

Report of the administration of the Hooghly Bridge Trust for the year ending the 31st March 1884.

**Read again—**

Public Works Proceedings (A), Communications, for June 1883, Nos. 1 and 2, being the report of the administration of the Hooghly Bridge for the year 1882-83, together with the Resolution passed thereon.

**RESOLUTION.**—The actual receipts and expenditure on the Hooghly Bridge during the year 1883-84, as compared with the estimated amounts, were as follows:—

	Estimate.	Actual.	More.
	Rs.	Rs.	Rs.
Receipts ... ..	4,94,771	5,36,695	41,924
Expenditure ... ..	5,51,774	6,03,515	51,741

To the actual receipt of Rs. 5,36,695, a sum of Rs. 695 has been added in suspense account.

2. The aggregate of contributions, since 1874-75, towards the repayment of the original loan, amounted, at the close of the year, to Rs. 11,61,800, leaving a balance of Rs. 10,80,000 still unpaid. The Reserve Fund invested in Government securities amounted at the close of the year to Rs. 5,37,176. There was a cash balance of Rs. 31,433, and stock of the value of Rs. 1,08,761 has been provided as a reserve in case of an accident happening to the bridge.

3. The excess in expenditure was caused by contributing a larger sum than was estimated in repayment of the original loan. The receipts from Railway traffic were in excess of the actual receipts of the previous year. There was no increase in the schedule of rates, and the difference was entirely due to an increase in the quantity of goods carried. The receipts from local traffic were also above the amount realized from that source during the previous year, owing to the enhanced rate at which the tolls were let for the year under review. The following are the comparative figures for the two years:—

	1882-83.	1883-84.	
	Actuals.	Estimated.	Actuals.
	Rs.	Rs.	Rs.
Railway traffic ...	3,25,556	3,30,000	3,75,500
Local ditto ...	1,11,813	1,21,200	1,22,200

4. The lease of the bridge tolls to Baboo Hurdial Marwaree expired on the 29th February 1884, and has been renewed for another year, the lessee paying the Commissioners Rs. 11,100 monthly.

5. The Steamer *Buckland* was employed in crossing the passenger traffic on the days when the bridge was opened to allow vessels to pass through. The steam tug *Hetty*, having been in dock during a portion of the year, was not available during that time for towing vessels through the Bridge.

6. No accidents occurred in passing sea-going vessels through the opening of the bridge, but 140 other vessels, including 127 boats carrying country cargo and passengers, collided with the bridge. None of the collisions, however, were of a serious nature, nor was there, so far as could be ascertained, any loss of life.

7. A petition signed by 6,642 persons asking for a reconsideration of the Commissioners' former decision not to allow the street tramway to be carried across the bridge was presented to the Commissioners in November 1883.



The question was again carefully considered, but the Commissioners were unable to alter their previous decision, refusing to allow such a tramway to be established.

8. During the year under review, the proposals of the Howrah Municipality regarding the construction, on the north side of the bridge approaches, of a road leading to the ghât at the Howrah abutment of the bridge were communicated to the Commissioners by Government. The Municipality suggested that a piece of land to the north of that which had been occupied by the quarters of the bridge officers should be taken up for a new approach road to the river, and that the payment of compensation might be obviated by inducing the owners of the land proposed to be taken to accept, in exchange, a strip of equal area of the land attached to the Port Commissioners' dock, which adjoins. It was found, however, that the suggestion of the Municipality would not be a convenient arrangement for Messrs. Ahmuty & Co., the owners of the land adjoining the bridge, it being used by them as a slip-way for hauling up boats; and an alternative plan, which would give access to the ghât, was then suggested by the Commissioners. They proposed that, in order to set the whole of the road to the south of the bridge free for the use of passengers and bathers, a piece of land belonging to the Commissioners should be made over to the Municipality for use either as a carriage stand, dépôt for stone metal, or for any other purpose found suitable. They also offered to open the archway under the bridge abutment, which is at present enclosed and used for the storage of timber and bridge stores, and to make it available as a passage to the bathing ghât on the north side of the bridge, which could then be set apart exclusively for the use of females. The Municipality and Government agreed to these suggestions, and the necessary alterations to make the ghât to the north of the bridge abutment suitable for native women are now being carried out. This matter has been the source of much correspondence during past years, and it is satisfactory that it has now been settled in a manner agreeable to all the parties interested in the result.

9. The question of readjusting the terminal charges collected on railway-borne goods at Howrah on account of the bridge was considered during the year under review. In February 1884 a conference was held at Howrah to discuss certain matters at issue between the Port Commissioners and the East Indian Railway Company. It was then proposed that, in consideration of certain concessions to be made to the Railway Company regarding dues on railway-borne goods on the Shalimar frontage, the terminal of Re. 1 per 100 maunds should be divided between the Port Commissioners and Bridge Commissioners, and that subsequent to the liquidation of the bridge debt, a terminal payable to the Port Commissioners should be maintained in lieu of frontage dues. The division of the present terminal has been sanctioned by Government, subject to the balance remaining to the bridge being sufficient to yield a surplus available for the payment of the annual sum of Rs. 73,333 towards the sinking fund of the bridge debt. When the debt is liquidated, a terminal wharfage charge will be levied in a manner to be determined hereafter.

ORDER.—Ordered that a copy of this Resolution be forwarded to the Bridge Commissioners for information.

Ordered also that this Resolution be published, for general information, in the Supplement of the *Calcutta Gazette*.

By order of the Lieutenant-Governor of Bengal,

S. T. TREVOR, *Colonel, R.E.*,

*Secretary to the Government of Bengal.*

## Rainfall, Weather, and State and Prospects of the Crops.

Statement showing Rainfall, Weather, and State and Prospects of the Crops in the different Districts of Bengal, as reported to Government during the week ending the 20th December 1884.

No.	District, and date of return.	Rainfall at Sudder Station in inches.	Character of the weather, state and prospects of the crops, and state of health at date.
<b>BENGAL.</b>			
<i>Western Districts.</i>			
<b>BURDWAN DIVN.</b>	1 Burdwan, Dec. 20 '84	Nil	Weather—seasonable. <i>Amun</i> paddy is still being harvested. <i>Rubbee</i> crops and sugarcane are promising. Common rice is generally selling at from 16 to 17 seers per rupee. General health good, a few cases of cholera and small-pox are reported from two places.
	2 Bankoora, „ 20 „	Nil	Weather—bright and seasonable. <i>Amun</i> paddy is still being cut. Prospects of <i>rubbee</i> crops good. Price of common rice varies from 17 to 22 seers per rupee. General health good except that fever continues here and there.
	3 Beerbhoom, „ 20 „	Nil	Weather—cold and fine. <i>Amun</i> paddy is being harvested. Sugarcane and other <i>rubbee</i> crops are doing well. Food-grains cheaper. Cases of cholera are reported, general health otherwise satisfactory.
	4 Midnapore, „ 20 „	Nil	Weather—seasonable. <i>Amun</i> paddy is giving an excellent yield. Prospects of cold-weather crops generally good. Sporadic cases of cholera and small-pox are still reported.
	5 Hooghly, „ 20 „	Nil	Weather—seasonable. <i>Amun</i> paddy all over the district appears to be a 12-anna crop. Winter crops, potatoes, sugarcane, &c., are all doing very well. Fever prevails in various parts of the district, and there are also a few cases of cholera reported.
	Howrah, „ 22 „	Nil	Weather—seasonable. The outturn of paddy is a full one. In Oolooberiah an almost sixteen-anna crop is expected. Winter crops are all doing well.
<i>Central Districts.</i>			
<b>PRESIDENCY DIVN.</b>	6 24-Perghs. Dec. 22 '84	Nil	Weather—seasonable. Prospects of <i>amun</i> paddy continue satisfactory. <i>Rubbee</i> crops are doing well. Public health generally good. Isolated cases of cholera are reported from the Busirhat and Diamond Harbour sub-divisions.
	7 Nuddea, „ 20 „	Nil	Weather—seasonable. Prospects of crops good.
	8 Khoolna, „ 20 „	Nil	Weather—cool. Harvesting of paddy going on satisfactorily. Cholera in some places, otherwise public health fair.
	9 Jessore, „ 20 „	Nil	Weather—seasonable. <i>Amun</i> paddy is still being harvested, prospects favourable. Winter crops are doing well. Cases of cholera and fever are reported here and there.
<b>RAJSHAHY DIVN.</b>	10 Moorsheadabad, „ 20 „	Nil	Weather—seasonable most part of the week, cloudy and warm again at the close. Reaping of <i>amun</i> paddy still continues; the outturn on an average for the district will not be far short of an eight-anna crop. All <i>rubbee</i> crops are doing well except <i>kalai</i> , which has been damaged to some extent by caterpillars. Some light rain is wanted for these crops. Common rice selling at from 14 seers in the Lalbagh to 19 seers in the Jungipore sub-division. Public health good except in the Nowada thana, where cholera prevails.
	11 Dinagepore, Dec. 19 '84	·05	Weather—seasonable. Harvesting of <i>amun</i> paddy and sugarcane continues, a fair outturn is expected. State of <i>rubbee</i> crops is good. Rice selling at from 12 to 18 seers per rupee.
	12 Rajshahye, „ 20 „	Nil	Weather—seasonable. Cutting of <i>amun</i> paddy continues. <i>Rubbee</i> crops generally promising. Health fair.
	13 Rungpore „ 20 „	Nil	Weather—seasonable. Harvesting of <i>amun</i> paddy still continues, outturn short. Sugarcane, mustard and other <i>rubbee</i> crops are doing well. Fever and cholera seem to be abating.
	14 Bogra, „ 20 „	Nil	Weather—getting colder. Prospects of winter crops fair. <i>Amun</i> paddy is being reaped. Public health fairly good.
	15 Pubna, „ 19 „	Nil	Weather—cold. Crops on the ground are reported to be healthy.
	16 Darjeeling, „ „	.....	Not received.
	17 Julpigoree, „ 20 „	Nil	Weather—seasonable. <i>Haimanti</i> paddy is being cut, the outturn will be below the average. Cold-weather crops are all doing well. Tobacco is very promising in the Alipore sub-division. Ordinary rice is selling at from 15 to 17 seers per rupee. Public health good.
<i>Eastern Districts.</i>			
<b>DACCA DIVN.</b>	18 Dacca, Dec. 20 '84	Nil	Weather—cold. Harvesting of <i>amun</i> paddy nearly completed; outturn good. Sugarcane is being cut. Sowing of pulses and <i>bora</i> paddy continues. Prospects of crops good. Public health good.
	19 Furreedpore, „ 20 „	Nil	Weather—clear and cool. State of standing crops is good. Prices falling. Cholera abating.
	20 Backergunge, „ 18 „	Nil	Weather—seasonable. <i>Amun</i> paddy is being reaped. Fever has abated; but cholera still prevails in some parts of the district.
	21 Mymensingh, „ 19 „	Nil	Weather—cool and pleasant with occasional fogs. Harvesting of paddy going on briskly. Prospects of cold-weather crops excellent.



No.	District. and date of return.	Rainfall at Sudder Station in inches.	Character of the weather, state and prospects of the crops, and state of health at date.
<b>BENGAL.—conold.</b>			
<i>Eastern Districts.</i>			
CHITTAGONG DIVN.	22 Chittagong, Dec. 22 '84	Nil	Weather—fair and cold. Prospects of crops good. Harvesting of <i>amun</i> paddy continues with about a twelve-anna outturn. Prices of food-grains somewhat low. Cholera continues.
	23 Noakholly, „ 19 „	Nil	Weather—clear and seasonable. <i>Amun</i> paddy is being reaped. Sowing of <i>rubbee</i> crops still continues. Cholera reported from the interior.
	24 Tipperah, „ 18 „	Nil	Weather—generally cool and clear, misty in the mornings. Harvesting of <i>amun</i> paddy continues, outturn generally favourable. Prices of food-grains nearly stationary. Cholera prevalent, otherwise public health good.
	25 Chittagong Hill Tracts, „ 16 „	Nil	Weather—seasonable, foggy in the mornings. Cotton-picking is over. Prospects of mustard, sugarcane and plough-paddy good. Plough-paddy is being harvested; tobacco transplanted.
	Hill Tipperah, „ 17 „	Nil	Weather—seasonably cool. <i>Amun</i> paddy is still being reaped. <i>Til</i> and cotton are being collected. Chillies and tobacco doing well. Public health good.
<b>BEHAR.</b>			
PATNA DIVN.	26 Patna, Dec. 20 '84	Nil	Weather—seasonable. Reaping of paddy and <i>jowar</i> still continues. <i>Rubbee</i> crops growing well. Gram, pulses and linseed are flowering. Prospects of poppy crop are at present favourable. Public health good.
	27 Gya, „ 20 „	Nil	Weather—cool and dry with heavy dews. Sugarcane and paddy are being harvested with good results. <i>Rubbee</i> and poppy crops promise well. Public health good.
	28 Shahabad, „ 19 „	Nil	Weather—cool. Prospects of <i>rubbee</i> crops favourable. Pressing of sugarcane in progress. Poppy crop is promising and is well advanced for the season.
	29 Durbhunga, „ 20 „	Nil	Weather—calm and cool. Paddy is being harvested. <i>Rubbee</i> crops continue promising, but rain is wanted in some parts. Poppy and tobacco doing well. Price of rice stationary, that of other food-grains slightly decreasing. Public health good.
	30 Mozufferpore, „ 19 „	Nil	Weather—seasonable with slight west winds. Harvesting of paddy going on all over the district. A moderate yield is expected. Prospects of <i>rubbee</i> crops continue good. Condition of poppy crop is reported to be favourable, and the plants are looking healthy and strong everywhere.
BHAGULPORE DIVN.	31 Sarun, „ 20 „	Nil	Weather—fair and cold. Harvesting of paddy going on briskly. <i>Rubbee</i> crops continue to be promising. Gram, pulses and linseed are flowering. Prospects of poppy crop excellent, weeding in progress. Prices of food-grains falling. Public health good.
	32 Chumparun „ 20 „	Nil	Weather—seasonable. Prospects of standing crops continue favourable. Paddy is being reaped. Condition of the poppy crop is excellent, young plants are looking very healthy. Public health fair. Cases of fever in the interior.
	33 Monghyr, Dec. 20 '84	Nil	Weather—seasonable. Paddy is being generally reaped. Prospects of <i>rubbee</i> crops continue good. Prices falling. Prospects of poppy crop good. Public health good.
	34 Bhagulpore, „ 20 „	Nil	Weather—seasonable. Paddy is being reaped. <i>Rubbee</i> crops doing well everywhere. Price of rice 15 seers per rupee in south and 19 in north. Public health good.
	35 Purneah, „ 20 „	Nil	Weather—fine and seasonable, but some rain would be very beneficial now. Prospects of winter crops generally very good, particularly in the Kishengunge sub-division. Outturn of <i>aghani</i> paddy in the Sudder sub-division will be very small.
	36 Maldah, „ 20 „	Nil	Weather—cold in the mornings, and strong, cool, westerly breeze in the evenings. Harvesting of winter paddy continues; average outturn about eight annas. Prospects of <i>rubbee</i> crops generally fair. Common rice is selling at from 13 to 14 seers per rupee. General health good.
	37 Sonthal Pergas, „ 20 „	Nil	Weather—clear and cold. Cutting of <i>aghani</i> paddy is very well advanced. Mustard is being gathered in places. Prospects of <i>rubbee</i> crops continue good. Public health good.
<b>ORISSA.</b>			
ORISSA DIVN.	38 Cuttack, Dec. 19 '84	Nil	Weather—cold and clear. <i>Sarad</i> on low lands is being harvested with fair outturn. <i>Rubbee</i> crops doing well. Sugarcane is being cut and pressed. Common rice selling at from 16 to 20 seers per rupee in the town and 24 seers on an average in the interior. Public health generally good.
	39 Pooree, „ 18 „	Nil	Weather—seasonable. <i>Sarad</i> is being harvested. State of <i>dalua</i> crop good. Mustard is being reaped. Miscellaneous crops doing well. Common rice selling at an average of 23 seers 9 chittacks per rupee in the Sudder sub-division, and 25 seers 7 chittacks in the Khorda sub-division. Cholera still reported.
	40 Balasore „ 18 „	Nil	Weather—cold and clear. Reaping of <i>sarad</i> in progress. <i>Rubbee</i> crops doing well. Sporadic cases of cholera and fever are reported from the interior; otherwise public health good.
<b>CHOTA NAGPORE.</b>			
<i>South-West Frontier Agency.</i>			
CHOTA NAGPORE DIVN.	41 Hazaribagh, Dec. 19 '84	Nil	Weather—bright and cold. Harvesting of paddy continues. Prospects of <i>rubbee</i> crops generally good. Young poppy plants healthy in places in which they are sufficiently watered, but they are yellow and drying in places where there are no facilities for irrigation. Prices almost stationary. A few cases of small-pox are still reported from the interior, otherwise general health good.
	42 Lohardugga, „ 19 „	Nil	Weather—cold. Prospects of <i>rubbee</i> crops good on the whole, though rain is slightly wanted in the Palamow sub-division. Prices stationary. Public health good.
	43 Singbhoom, „ 19 „	Nil	Weather—seasonable. Harvesting of late paddy completed in some parts of the district and continues elsewhere; outturn excellent. Cold-weather crops are doing well. General health good.
	44 Manbhoom, „ 20 „	Nil	Weather—seasonable; but slightly warmer than usual in this month. Harvesting of paddy continues; outturn somewhat indifferent; prospects of other crops fair; price of coarse rice 22 seers per rupee in the Parulia market. Public health good.

Published for general information.

CALCUTTA, STATISTICAL DEPT.,  
The 23rd December 1884.COLMAN MACAULAY,  
Secy. to the Govt. of Bengal.

## PRICES-CURRENT of Food-grains, Firewood and Salt in the

Number.		DISTRICTS.	RETAIL SALE:—QUANTITIES PER RUPEE BY																										
			WHEAT.			BARLEY.			RICE, BEST SORT.			RICE, COMMON.			BULRUH MILLET CUMBOO, BAJRA.			GREAT MILLET— CHOLU JOWAR.											
			Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.									
BENGAL.																													
Western Districts.																													
1	Bardwan	...	16 0	16 0	15 8	27 0	23 0	20 0	11 8	11 8	12 12	16 0	16 0	13 0	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
2	Bankoora	...	15 8	15 0	14 8	16 0	16 0	17 0	14 8	14 12	14 0	17 0	16 12	18 0	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
3	Peerbhoom	...	16 0	16 8	15 0	...	...	...	14 0	14 0	15 0	16 0	16 0	18 0	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
4	Midnapore	...	14 0	12 0	12 0	20 0	20 0	15 0	14 0	14 0	11 8	18 0	16 0	16 0	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
5	Hooghly	...	16 0	16 0	14 0	...	...	...	9 0	9 0	8 0	13 0	13 0	13 0	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Howrah	...	15 4	15 0	13 8	...	...	...	11 0	11 0	12 8	14 8	13 4	14 8	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Central Districts.																													
	Calcutta	...	16 0	17 10	12 0	20 0	20 0	16 0	8 4	8 0	7 0	10 8	10 8	11 0	13 0	11 8	16 0	11 7	11 7	20 0	...	...	...	...	...	...	...	...	...
6	24-Pergunnahs	...	16 0	16 0	13 5	18 0	20 0	16 0	8 0	8 0	8 0	20 0	20 0	16 0	...	...	...	...	...	...	...	...	...	...	...	...	...	...	16 0
7	Nuddea	...	17 4	17 4	15 4	22 15	21 5½	...	12 13	11 2	12 5	13 14	12 5	13 14	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
8	Khoolna	...	...	...	...	...	...	...	14 0	13 0	12 0	16 0	16 0	14 0	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
9	Jessore	...	13 0	13 8	13 5	...	...	...	11 8	11 0	11 8	16 0	16 0	14 6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
10	Moorshedabad	...	17 0	18 0	16 0	...	...	...	12 0	10 0	12 0	16 0	14 0	16 0	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
11	Dinapore	...	16 12	15 12	15 8	16 12	16 0	15 8	13 8	10 13	13 0	18 0	13 4	16 0	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
12	Rajshahye	...	16 8 to 17 4	16 14 to 16 8	15 12 to 16 8	19 8	21 0	20 4	14 0* to 15 0	8 0 to 10 12	10 8 to 10 12	16 8* to 17 4	12 6 to 13 4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
13	Rungpore	...	13 0	13 0	10 0	...	...	...	7 0	7 0	8 10	11 0	11 0	13 5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
14	Bogra	...	13 8	13 8	15 0	...	...	...	9 12	9 12	9 12	17 4*	12 12	16 8	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
15	Pubna	...	17 12	18 12	18 12	...	...	...	8 4	8 4	7 8	14 4	14 4	15 0	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
16	Darjeeling	...	10 0	10 0	7 0	7 0	9 0	7 0	5 0	5 0	5 0	12 0	11 0	11 0	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
17	Julpigoree	...	11 0	10 0	10 0	...	...	20 0	11 0	10 0	9 0	16 0*	12 0	14 0	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Eastern Districts.																													
18	Dacca	...	14 8	18 0	14 8	22 0	16 0	15 0	15 0*	11 0	12 0	16 0	14 0	13 12	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
19	Furzedport	...	20 0	20 0	22 0	34 0	34 0	30 0	11 0	11 0	12 8	12 0	12 0	16 0	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
20	Backergunge	...	...	...	...	...	...	...	13 4	12 12	13 0	18 0*	14 12	16 0	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
21	Mymensingh	...	13 0	13 4	12 8	...	...	...	10 0	10 4	10 0	12 4	12 8	14 8	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

\* The supply of new rice now coming into the market has caused the fall in price.

A In the sub-divisions the retail prices of salt per rupee were:—Culna 14 seers, Cutwa 12 seers, and Ranegunge 13½ seers.

B The retail price of salt ranged in the interior from 12 to 16 seers per rupee.

B1 The retail price of salt in the interior ranged from 11½ to 13½ seers per rupee.

B2 In the sub-divisions the retail prices of salt per rupee were:—Ghattal 14½ seers and Contai 12½ seers.

C In the sub-divisions the retail prices of salt per rupee were:—Serampore 13 seers and Jehanabad 13½ seers.

D In the sub-divisions the retail prices of salt per rupee were:—Baraset and Bussirhat 13 seers, Barrackpore 12½ seers, and Dam-Dum 12 seers.

E In the sub-divisions the retail prices of salt per rupee were:—Koochta 13 seers, Moherpore 12 seers, Choodanga 12½ seers, and Ranaghat 11½ seers.

F In the sub-divisions of Satkhira and Bagirhat the retail price of salt was 11 seers per rupee.

G In the sub-divisions the retail prices of salt per rupee were:—Jhenidah and Navail 12 seers, Magoora 10½ seers, and Bongong 13 seers.



## Districts of Bengal for the Fortnight ending the 15th December 1884.

THE SEER OF 80 TOLAHS.															WHOLESALE PRICES PER MAUND OF 40 SEERS.			DISTRICTS
LESSER MILLET— RAGI OR MURWA AND CHEENA.			MAIZE OR INDIAN- CORN.			GRAM.			FIREWOOD.			SALT.			SALT.			
Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	
S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	Rs. A.	Rs. A.	Rs. A.	
...	...	...	...	...	...	18 0	18 0	18 0	120 0	120 0	120 0	A 13 5	13 0	13 0	2-14-0	2-14-8	2-15-0	Burdwan.
...	...	...	26 0	26 0	22 0	18 0	18 0	17 0	240 0	240 0	280 0	B 13 0	13 0	12 0	3 0	3-1-6	3-3-6	Bankoora.
...	...	...	...	...	...	16 0	16 0	16 0	160 0	160 0	160 0	B1 12 0	12 0	12 0	3-2-6	3-2-6	3-2-6	Beerbhoom.
...	...	...	...	...	...	16 0	16 0	15 0	155 0	155 0	145 0	B2 12 12	12 12	12 8	3 0	3 0	2 14	Midnapore.
...	...	...	...	...	...	16 0	16 0	16 0	120 0	120 0	120 0	C 13 9	13 9	13 9	2 14	2 14	2 14	Hooghly.
...	...	...	...	...	...	17 8	17 8	17 0	80 0	80 0	80 0	13 0	13 0	13 0	3 0	3 0	3 0	Howrah.
Central Districts.																		
...	...	...	21 10	21 8	18 0	19 11	19 11	12 0	100 0	100 0	90 0	D 12 13	12 13	11 0	3 0	2 12	2 12	Calcutta.
...	...	...	21 4	24 8	16 0	18 4	20 0	16 0	100 0	100 0	80 0	12 13	12 13	12 13	3 0	3 0	3 0	24-Pergunnahs.
...	...	...	...	...	...	21 5½	21 5½	16 13	...	...	...	E 11 10½	11 10½	11 10½	3 0	3 0	3 0	Nuddea.
...	...	...	...	...	...	16 0	16 0	16 0	200 0	200 0	240 0	F 12 0	12 0	10 8	3 2	3 2	3 4	Khoolna.
...	...	...	...	...	...	16 0	16 0	16 0	120 0	120 0	120 0	G 11 8	11 12	10 12	3 2	3 2	3 2	Jessore.
...	...	...	...	...	...	20 0	20 0	18 0	120 0	120 0	120 0	H 12 0	12 0	10 10	3-1-3	3-1-3	3 2	Morshadabad.
...	...	...	...	...	...	16 0	14 0	15 0	160 0	160 0	160 0	I 12 8	12 0	12 0	3 2	3 4	3 4	Dinapore.
...	...	...	...	...	...	18 0 to 19 8	17 4 to 19 4	16 8	240 0	240 0	240 0	J 12 12	12 12	12 0	3 0	3 0	3-2-6	Rajshahye.
...	...	...	...	...	...	9 12	9 12	15 0	110 0	93 0	110 0	K 10 0	10 0	11 14	4 0	3 8	3 5	Bargpore.
...	...	...	...	...	...	15 0	15 0	13 8	90 0	90 0	67 8	L 12 0	12 0	12 0	3-5-4	3-5-4	3-2-8	Bogra.
...	...	...	...	...	...	17 0	17 0	15 12	200 0	200 0	200 0	12 6	12 6	12 4	3 1	3 1	3 2	Pubna.
13 0	14 0	13 0	24 0	18 0	16 0	8 0	8 0	8 0	160 0	160 0	128 0	8 0	8 0	8 0	4 4	4 4	4 8	Darjeeling.
...	...	...	...	...	...	16 0	14 0	13 0	126 0	128 0	128 0	12 4	12 4	12 4	3 4	3 4	3 4	Jalpigoree.
Eastern Districts.																		
...	...	...	...	...	...	17 0	18 0	17 8	120 0	80 0	97 0	M 13 5	13 0	12 10	3 0	3 0	3 2	Dacca.
...	...	...	...	...	...	16 0	16 0	20 0	120 0	120 0	120 0	N 12 0	12 0	12 0	3 2	3 2	3 5	Furzedpore.
...	...	...	...	...	...	16 4	16 4	17 0	120 0	120 0	120 0	O 13 0	13 0	13 0	...	3 2	2 11	Backergunge.
...	...	...	...	...	...	14 0	15 0	16 0	...	...	...	P 12 12	12 8	12 4	3 2	3 3	3 4	Mymensingh.

H In the sub-divisions the retail prices of salt per rupee were:—Lalbagh 11 seers, Jungipore and Kandi 12 seers.

I The retail price of salt at itaigunge was 11½ seers and at Nitpore 10 seers per rupee.

J In the sub-divisions of Nattore and Nowgong the retail price of salt was 12 seers per rupee.

K In the sub-divisions the retail prices of salt per rupee were:—Kurigram and Gaibanda 13 seers, and Nilphamari 12 seers.

L The retail price of salt at serajunge was 12½ seers per rupee.

M In the sub-divisions the retail prices of salt per rupee were:—Manickgunge 12 seers, Moonshigunge 10 seers and 10½ chittacks, and Naraingunge 14 seers.

N In the sub-divisions the retail prices of salt per rupee were:—Goalundo 13 seers, and Madaripur 12 seers.

O In the sub-divisions the retail prices of salt per rupee were:—Patuakhali 10½ seers, Perozapore 11 seers, and Bhola 10½ seers.

P In the interior the retail price of salt ranged from 10½ to 12½ seers per rupee.

## PRICES-CURRENT of Food-grains, Firewood and Salt in the

Number.	DISTRICTS.	RETAIL SALE :—QUANTITIES PER RUPEE BY THE																	
		WHEAT.			BARLEY.			RICE, BEST SORT.			RICE, COMMON.			BULRUSH MILLET— CUMBOO, BAJRA.			GRAT MILLET— CHOLU JOWAR.		
		Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.

## Eastern Districts.—Concluded.

		S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.
22	Chittagong	16	0	15	0	11	0	...	...	...	...	14	0	13	0	13	0	18	0	16	0	18	0
23	Noakholly	...	...	...	...	...	...	...	...	...	...	14	0	13	0	16	0	15	0	14	0	18	0
24	Tipperah	12	4	12	0	13	4	...	...	...	...	13	0	12	8	16	0	19	14	19	14	19	0
25	Chittagong Hill Tracts,*	...	...	...	...	...	...	...	...	...	...	11	0	11	7	...	...	12	0	13	4	...	...
26	Hill Tipperah	12	0	12	0	10	0	...	...	...	...	13	0	12	0	14	0	19	0	18	0	18	0

## BEHAR.

26	Patna	...	22 0	24 0	18 8	32 0	32 0	25 8	10 8	10 8	12 0	21 0	18 0	13 0	..	...	..	...	...	...	...	...	...	...
27	Gya	...	17 8	17 12	17 0	22 0	22 0	20 0	8 8	8 12	11 0	14 0	14 8	14 0	...	...	..	...	...	...	...	...	...	...
28	Shahabad	...	{ 18 0 to 19 0	{ 18 0 to 19 0	{ 16 0 to 18 0	{ 24 0	22 0	23 0	{ 8 0 to 10 0 New	{ 8 0 to 9 0 New	{ 9 0	{ 18 0 to 14 0 New	{ 12 0 to 13 0 New	{ 13 0 to 14 0 New	{ 24 0	...	23 0	...	23 0	22 0	...	...	...	...
29	Durbhunga	...	19 14	18 12	15 0	26 0	22 0	22 0	{ 12 9 Old 9 15	{ 15 6 Old 11 0	11 8	{ 16 2 Old 12 1	{ 17 10 Old 13 4	14 0	...	...	..	...	...	...	...	...	...	...
30	Mozufferpore	...	20 0	18 0	18 0	23 0	26 0	25 0	11 0	11 0	9 0	16 0	16 0	13 0	...	...	...	...	...	...	...	...	...	...
31	Sarun	...	20 8	20 0	17 0	23 0	23 0	23 0	8 4	8 0	9 0	18 0	16 8	13 8	...	...	...	35 0	35 0	22 0	...	...	...	...
32	Champaran	...	16 0	16 8	18 0	20 0	...	...	12 0	12 0	10 0	16 8	18 0	17 0	...	...	...	...	...	...	...	...	...	...
33	Monghyr	...	23 1	23 1	17 13	16 13	22 0	21 0	10 8	10 8	11 0	15 12	14 12	12 9	...	...	...	...	...	...	...	...	...	...
34	Bhagulpore	...	20 12	19 9	15 12	20 3	20 3	20 3	10 11	10 11	11 14	13 14	13 14	13 14	...	...	...	...	...	...	...	...	...	...
35	Purneah	...	17 0	16 0	14 0	...	...	...	13 0	12 0	15 0	16 0	16 0	16 0	...	...	..	...	...	...	...	...	...	...
36	Maldah	...	19 0	20 0	18 0	...	...	...	11 0	10 12	12 0	14 0	12 4	13 0	...	...	...	...	...	...	...	...	...	...
37	Sonthal Pergs.	...	16 0	16 0	14 0	...	...	...	12 0	12 0	12 0	15 8	15 0	16 0	...	...	..	...	...	...	...	...	...	...

## ORISSA.

38	Cuttack	21	0	21	0	13	2	...	...	...	...	13	2	13	2	13	2	18	6	18	6	18	6	...	...
39	Pooree	17	1	16	12	10	8	...	...	...	...	13	2	11	13	14	7	17	1	19	0	19	11	...	...
40	Balasore	15	9	15	0	14	0	11	0	11	0	...	...	13	0	13	0	16	0	22	0	24	0	21	0

## CHOTA NAGPORE.

South-Western Frontier Agency.

41	Hazareebagh	15	8	15	0	15	0	...	...	...	...	12	0	12	0	9	0	18	0	18	0	15	0	...	...
42	Lohardugga	14	0	14	0	14	0	...	...	...	...	16	0	16	0	16	0	15	0	21	0	21	0	19	0
43	Singbhoom	18	0	18	0	16	0	20	0	20	0	24	0	20	0	20	0	22	0	24	0	24	0	28	0
44	Manbhoom	14	0	13	8	14	0	...	...	...	...	14	0	...	...	14	0	22	0	22	0	20	8	...	...

\* Return not received.

† In the interior the retail price of common rice ranged from 22 seers 5 chittack to 26½ seers per rupee.

Q The retail price of salt at Cox's Bazar was 10 seers per rupee.

R In the interior the retail price of salt ranged from 9 to 12½ seers per rupee.

S In the Aurangabad sub-division the retail price of salt was 11 seers per rupee.

T In the sub-divisions the retail prices of salt per rupee were :—Buxar and Sasseram 12 seers, and Bhabbhun 11 seers.

U In the sub-divisions the retail prices of salt per rupee were :—Tajpore 11½ seers and Madhubani 11 seers.

V In the interior the retail price of salt ranged from 10 to 12½ seers per rupee.



of Bengal for the Fortnight ending the 15th December 1884.—(Concl'd.)

SEER OF 80 TOLAHS.

WHOLESALE PRICES  
PER MAUND OF  
40 SEERS.

LESSER MILLET— RAGI OR MURWA AND CHEENA.			MAIZE OR INDIAN- CORN.			GRAM.			FIREWOOD.			SALT.			SALT.			DISTRICTS.
Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	

Eastern Districts.—Concluded

S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	Rs. A.	Rs. A.	Rs. A.	
...	...	...	...	...	...	14 0	13 0	13 0	120 0	120 0	40 0	Q 13 0	13 0	11 0	2 14	2 14	3 4				Chittagong.	
...	...	...	...	...	...	8 0	11 0	12 0	...	...	...	R 10 0	10 0	10 0	3 6	3 6	3 6				Noakholly.	
...	...	...	...	...	...	15 10	15 10	16 0	...	...	...	12 4	12 0	12 0	3 3	3 3	3 4				Tipperah.	
...	...	...	...	...	...	...	...	...	...	320 0	320 0	...	8 0	8 0	...	4 8	4 8				Chittagong Hill Tracts.	
...	...	...	...	...	...	14 0	14 0	14 0	...	...	...	11 0	11 0	11 0	3 4	3 4	3 4				Hill Tipperah.	

BEHAR.

...	...	...	32 0	32 0	30 0	26 4	27 0	23 4	100 0	100 0	112 0	12 0	12 0	11 0	3 0	3 0	3 0	...	...	...	Patna.
...	...	...	...	...	...	21 0	22 0	21 0	200 0	200 0	180 0	S 11 0	11 0	11 0	3 6	3 6	3 6	...	...	...	Gya.
...	...	...	28 0	24 0	...	22 0	22 0	20 0	140 0	140 0	120 0	T 12 8	12 8	12 8	3 1	3 1	3 1	...	...	...	Shahabad.
28 0	27 8	22 0	30 14	28 10	22 0	24 3	20 16	22 0	220 0	176 0	160 0	U 12 15	12 15	12 6	3-0-6	3-0-6	3-1-6	...	...	...	Darbhanga.
...	...	...	30 0	29 0	23 0	20 0	20 0	21 0	140 0	140 0	140 0	V 12 0	12 0	12 0	3 4	3 4	3 4	...	...	...	Mozufferpore.
23 0	20 0	28 0	33 0	29 8	22 8	22 8	22 0	20 0	160 0	160 0	160 0	W 12 0	12 4	11 0	3-2-0	3-2-9	3-4-0	...	...	...	Saran.
...	...	...	32 0	32 0	8 0	18 0	17 0	23 0	...	...	...	X 12 0	12 0	11 12	3 4	3 4	3 5	...	...	...	Chumparnun.
...	...	...	35 12	33 9	23 1	24 2	25 2	21 0	126 0	126 0	126 0	Y 13 2	13 1	12 1	2-13-3	2-13-0	3-2-5	...	...	...	Monghyr.
...	...	...	32 12	34 0	21 7	24 0	22 11	20 13	151 8	164 0	151 8	Z 12 10	12 10	12 10	3 0	2-14-0	3 0	...	...	...	Bhagulpore.
...	...	...	...	...	...	17 0	17 0	15 0	160 0	160 0	160 0	Z1 10 0	...	11 0	3 10	...	...	...	...	...	Purneah.
...	...	...	...	...	...	19 0	16 0	16 0	180 0	160 0	160 0	12 0	12 0	11 0	3 4	3 4	3 4	...	...	...	Maldah.
...	...	...	30 0	33 0	22 8	17 8	17 0	15 8	200 0	200 0	200 0	Z3 11 8	11 8	11 8	3-5-6	2-5-6	3-4-6	...	...	...	Sonthal Pergna.

ORISSA.

17 1	15 12	15 12	...	...	...	21 0	23 10	15 12	80 0	80 0	80 0	14 0	14 0	14 0	2 12	2 12	2 12	...	...	...	Cuttack.
...	...	...	...	...	...	19 11	17 1	18 6	100 0	100 0	100 0	16 0	14 7	13 3	2 7	2 8	2 12	...	...	...	Pooree.
...	...	...	...	...	...	15 0	15 0	13 0	120 0	120 0	160 0	Z3 10 12	10 12	10 0	3 6	3 6	3 14	...	...	...	Balasore.

CHOTA NAGPORE.

South-Western Frontier Agency.

25 0	27 0	24 0	24 0	24 0	8 0	17 8	17 8	16 0	240 0	240 0	240 0	11 0	10 6	11 0	3-4-9	3-7-3	3 8	...	...	...	Hazareebagh.
40 9	40 0	32 0	18 0	20 0	24 0	15 0	16 0	14 0	120 0	120 0	100 0	11 0	11 0	10 0	3 6	3 6	3 10	...	...	...	Lohardugga.
...	...	...	...	...	...	12 0	12 0	20 0	160 0	160 0	160 0	9 0	9 0	8 0	4 0	4 0	4 0	...	...	...	Singbhoom.
...	...	...	...	...	...	17 0	17 0	15 0	240 0	240 0	120 0	10 8	10 10	10 0	3 8	3 4	3 8	...	...	...	Manbhoom.

W In the sub-division of Gopalgunge the retail price of salt was 12 seers per rupee.

X The retail price of salt in the interior ranged from 10 to 13 seers per rupee.

Y In the sub-divisions the retail prices of salt per rupee were:—Banka and Moopur 11 seers, and Madhupura 10½ seers.

Z In the sub-divisions the retail prices of salt per rupee were:—Begusarai 11 seers, and Jaimai 11½ seers.

Z1 In the sub-divisions of Kishengunge and Arrareah the retail price of salt was 10 seers per rupee.

Z2 In the sub-division of Rajmehal the retail price of salt was 12½ seers per rupee.

Z3 The retail price of salt at Bhadrack was 8 seers per rupee.

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COLMAN MACAULAY,  
Secretary to the Govt. of Bengal.

## WHOLESALE PRICES-CURRENT of Food-grains, Firewood, and Salt in

Number	MARTS.	PRICES PER MAUND														
		WHEAT.			BARLEY.			RICE, BEST SORT.			RICE, COMMON.			BULRUSH MILLET— CUMBOO BAJRA.		
		Present return.			Next preceding return.			Corresponding return of last year.			Present return.			Next preceding return.		
		R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.
1	Calcutta ...	2 6 0	2 4 0	3 0 0	2 0 0	2 0 0	2 2 0	4 12 0	5 0 0	5 8 0	3 12 0	3 12 0	3 0 0	3 0 0	3 8 0	1 15 0
2	Serajgunge ...	2 7 0	2 8 0	2 7 0	...	...	...	4 12 0	4 12 0	4 0 0	2 12 0	3 2 0	3 4 0	...	...	...
3	Dacca ...	2 12 0	2 4 0	2 12 0	1 13 0	2 8 0	2 10 0	2 10 6	3 10 0	3 5 0	2 8 0	2 12 0	2 14 0	...	...	...
4	Naraingunge ...	...	...	...	...	...	...	2 11 6	2 13 0	2 9 0	2 6 3	2 10 0	2 7 0	...	...	...
5	Chittagong ...	2 8 0	2 8 0	3 8 0	...	...	...	2 12 0	3 0 0	2 12 0	2 2 0	2 6 0	2 0 0	...	...	...
6	Patna ...	1 11 0	1 9 6	2 0 0	1 3 0	1 3 0	1 6 6	3 5 0	3 5 0	3 1 3	1 13 0	2 2 0	2 14 0	...	...	...
7	Balasore ...	2 8 0	2 8 0	2 8 0	3 2 0	3 2 0	...	3 0 0	3 0 0	2 4 0	1 13 0	1 10 0	1 10 0	...	...	...
8	Pooree ...	...	...	...	...	...	...	...	...	...	2 4 0	2 0 0	2 0 0	...	...	...
9	Cuttack ...	1 11 0	1 11 0	3 0 0	...	...	...	3 0 0	3 0 0	3 0 0	2 0 0	2 0 0	2 0 0	...	...	...

CALCUTTA,  
The 23rd December 1884.



*the undermentioned Marts of Bengal for the Fortnight ending the 15th December 1884.*

OF 40 SEERS.

GREAT MILLET— CHOLU JOWAR			LESSER MILLET— RAGI OR MURWA AND CHENNA.			MAIZE OR INDIAN- COEN.			GRAM.			FIREWOOD.			SALT.			MARTS.
Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	
R.A.P.	R.A.P.	R.A.P.	R.A.P.	R.A.P.	R.A.P.	R.A.P.	R.A.P.	R.A.P.	R.A.P.	R.A.P.	R.A.P.	R.A.P.	R.A.P.	R.A.P.	R.A.P.	R.A.P.	R.A.P.	
3 9 03	9 01	1 15 0	...	...	...	1 10 01	1 12 01	1 12 02	2 1 02	2 1 02	2 12 0	0 5 90	0 5 90	0 6 6	3 0 02	2 12 02	2 12 0	Calcutta.
...	...	...	...	...	...	...	...	...	2 10 0	2 10 02	2 6 0	...	...	...	3 0 03	0 03	0 0	Serajungo.
...	...	...	...	...	...	...	...	...	2 5 6	2 4 02	2 4 0	0 5 30	7 00	7 0	3 0 03	0 03	2 0	Dacca.
...	...	...	...	...	...	...	...	...	2 7 0	2 4 02	2 4 0	0 8 00	8 00	7 0	2 14 02	2 14 03	0 0	Naraingungo.
...	...	...	...	...	...	...	...	...	2 12 0	3 0 02	2 14 0	0 4 00	4 00	5 3	2 14 02	2 14 03	4 0	Chittagong.
...	...	...	...	...	...	1 3 01	1 3 01	1 4 01	1 6 0	1 5 01	1 9 0	0 5 00	5 00	5 0	3 0 03	0 03	0 0	Patna.
...	...	...	...	...	...	...	...	...	2 8 0	2 8 03	0 0	0 5 00	5 00	3 0	3 6 03	6 03	14 0	Balasore.
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2 7 02	8 02	12 0	Poores.
...	...	...	2 2 0	2 5 0	2 5 0	...	...	...	1 11 0	1 9 02	2 5 0	0 8 00	8 00	8 0	2 12 02	2 12 02	2 12 0	Cuttack.

Published for general information.

COLMAN MACAULAY,  
Secy. to the Govt. of Bengal.

The following Statement shows the Quantities of the Principal Staples of Traffic imported into Calcutta from the Interior during the month of September 1884.

## IMPORTS INTO CALCUTTA.

Whence imported.	FOOD-GRAINS.							FIBROUS PRODUCTS.		OIL-SEEDS.		Tea, Indian.	Cotton, raw.	Silk, raw.	SUGAR.		TOBACCO.	
	RICE AND PADDY.			Wheat.	Gram and pulses.	Other food-grains.	Total.	Jute, raw.	Gunny-bags.	Linseed.	Mustard-seed.				Drained.	Un-drained.	Bis-path.	Other kinds.
	Rice.	Paddy.	Total (in rice).															
BENGAL.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	No.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.
Burdwan ...	544	600	857	.....	2,393	.....	3,250	.....	100	118	.....	290	4	54	25	.....	.....	12
Beerbhoom ...	40	.....	40	.....	.....	.....	40	.....	.....	.....	.....	.....	6	499	.....	.....	.....	.....
Midnapore ...	1,31,615	72,323	1,76,817	.....	371	.....	1,77,188	.....	270	29	.....	.....	29	366	.....	.....	.....	5
Hoochly ...	37,348	1,845	38,501	.....	13,350	118	57,893	.....	10,211	353,300	32,655	4,135	1,004	72	2,560	11,198	.....	6,436
24-Perannahs ...	1,23,677	11,431	1,39,821	10	.....	.....	1,39,837	42,977	194,346	222	1,152	.....	1,271	.....	8,551	10,124	.....	7,776
Nuddea ...	1,946	400	2,196	10,541	46,081	8,857	68,578	1,55,602	28,350	7,985	3,789	.....	236	405	295	218	.....	3,722
Kaolina ...	7,695	12,785	15,089	.....	400	.....	16,086	775	2	100	.....	.....	.....	.....	1,030	7,400	.....	2,290
Jessore ...	12,555	2,730	14,261	9,594	20,282	832	44,969	18,105	3	1,348	.....	.....	.....	.....	667	10,894	.....	2,290
Moorsadabad ...	26	.....	26	.....	16,249	408	16,853	.....	.....	2,999	2,639	.....	19	473	229	.....	.....	340
Dinapore ...	11,541	.....	11,541	.....	42	.....	11,583	23,218	129,033	250	196	.....	.....	.....	.....	.....	.....	62
Rajshahye ...	2,826	.....	2,826	.....	15,391	.....	18,217	82,154	4	3,163	694	.....	.....	5	.....	.....	.....	157
Bungpore ...	.....	.....	.....	853	.....	.....	853	1,19,024	2,394	.....	50	.....	.....	.....	.....	.....	2,369	89
Bozra ...	3,908	.....	3,908	.....	.....	.....	3,908	18,291	.....	.....	40	.....	.....	.....	.....	.....	.....	183
Puona ...	.....	.....	.....	753	21,509	.....	22,267	2,41,096	13,629	4,848	39,187	.....	.....	.....	.....	.....	.....	1,418
Darjeeling ...	.....	.....	.....	.....	.....	.....	.....	8,627	3,934	.....	.....	11,456	.....	.....	.....	.....	.....	310
Jalpigoree ...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	11,450	.....	.....	.....	.....	.....	16,100
Dacca ...	6,729	.....	6,729	2,123	16,219	.....	25,071	1,62,333	.....	.....	4,251	.....	2	.....	.....	.....	.....	14
Furzedpore ...	7,903	800	8,463	.....	12,708	1,637	22,748	7,42,512	.....	250	5,181	.....	54	.....	.....	367	.....	.....
Backergunge ...	2,57,838	200	2,57,962	.....	481	.....	2,58,444	2,991	.....	300	875	.....	.....	.....	.....	.....	.....	.....
Mymensing ...	3,970	.....	3,970	.....	3,744	.....	7,714	1,827	.....	420	2,324	.....	.....	.....	.....	.....	.....	.....
Tipperah ...	10,300	.....	10,300	.....	.....	.....	10,300	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Chittagong ...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1,568	.....	.....	.....	.....	.....	.....
Noakholly ...	48,344	.....	48,344	.....	.....	.....	48,344	160	.....	.....	.....	900	.....	.....	.....	.....	.....	.....
Total of Bengal ...	6,08,865	1,03,614	7,33,249	30,132	1,69,800	11,852	9,45,033	16,18,291	725,253	54,658	64,513	24,792	3,585	1,874	13,267	39,834	2,736	38,082
BEHAR.																		
Patna ...	760	.....	760	28,636	20,515	4,625	54,536	55	.....	1,78,241	25,538	.....	.....	11	1,213	312	.....	3,100
Gya ...	.....	.....	.....	14,015	4,609	2,497	21,121	.....	.....	1,230	397	.....	.....	6	1,461	406	.....	7
Shahabad ...	.....	.....	.....	2,150	350	526	3,485	.....	.....	15,859	2,120	.....	.....	.....	.....	.....	.....	.....
Muzafferpore ...	459	.....	459	313	400	40	763	.....	.....	3,891	9,903	.....	.....	.....	.....	.....	.....	18
Durbhunga ...	.....	.....	.....	6,944	6,742	3,859	16,645	.....	.....	43,119	6,801	.....	.....	.....	274	.....	.....	1,631
Sarun ...	.....	.....	.....	.....	.....	.....	.....	.....	.....	7,947	6,801	.....	.....	.....	.....	321	.....	.....
Chumpan ...	.....	.....	.....	.....	.....	.....	.....	.....	.....	8,513	286	.....	.....	.....	.....	.....	.....	.....
Monghyr ...	1,914	.....	1,914	8,862	16,399	973	28,139	.....	.....	14,027	12,274	1	475	.....	.....	.....	51	29
Bhagulpore ...	.....	.....	.....	14,724	3,604	5,061	22,869	.....	.....	18,162	8,169	.....	20	.....	1,045	.....	.....	.....
Purneah ...	.....	.....	.....	182	3,261	.....	4,243	42	1,850	2,702	5,986	331	.....	.....	354	.....	.....	2,006
Maldah ...	.....	.....	.....	13,426	3,918	4,050	21,403	5,200	.....	4,747	8,358	.....	35	.....	.....	.....	.....	644
Sonthal Pergun- nahs ...	.....	.....	.....	2,483	908	544	3,935	.....	.....	7,447	8,040	.....	20	315	.....	.....	.....	.....
Total of Behar ...	3,133	.....	3,133	91,704	60,187	22,165	1,77,189	5,297	1,350	3,04,975	87,497	382	530	332	3,302	2,084	51	7,350
ORISSA.																		
Cuttack ...	.....	.....	.....	.....	.....	.....	.....	175	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Balasore ...	50,316	25,742	66,405	.....	634	.....	67,059	272	850	.....	344	.....	.....	.....	.....	.....	.....	207
Total of Orissa ...	50,316	25,742	66,405	.....	634	.....	67,059	447	850	.....	344	.....	.....	.....	.....	.....	.....	237
CHOTA NAGPORE.																		
Hazaribagh ...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	327	.....	8	.....	.....	.....	.....
Grand Total of supplies from the Provinces under the Lieutenant-Governor of Bengal.	7,22,314	1,28,756	8,02,787	1,21,836	2,30,641	34,017	11,89,281	16,24,635	727,953	3,59,633	1,52,354	25,501	4,115	2,234	16,569	41,918	2,787	46,575
OTHER PROVINCES.																		
Assam ...	.....	.....	.....	.....	.....	.....	.....	382	.....	9,032	24,316	85,364	165	20	.....	.....	.....	.....
North-Western Pro- vinces and Oudh ...	2	.....	2	62,818	34,128	1,640	98,588	.....	.....	56,129	34,823	38	3,362	.....	282	230	.....	580
Punjab ...	1	.....	1	5,210	1,477	.....	7,288	.....	.....	.....	1,133	278	731	.....	.....	2	.....	.....
Central Provinces ...	.....	.....	.....	407	810	.....	1,217	.....	.....	3,760	.....	.....	162	.....	.....	.....	.....	.....
Bombay ...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5,734	.....	.....	.....	.....	.....
Madras ...	.....	.....	.....	.....	24,588	.....	24,588	.....	.....	.....	.....	.....	713	.....	.....	.....	.....	108
British Burmah ...	.....	.....	.....	.....	.....	.....	.....	1,000	.....	.....	.....	.....	671	.....	.....	.....	.....	.....
Other places ...	120	.....	120	.....	48	.....	168	300	.....	.....	.....	.....	427	.....	.....	.....	.....	.....
Grand Total (1884 of imports in Sept. 1883)	7,22,437	1,28,756	8,02,919	1,90,371	2,91,692	35,657	13,21,130	16,24,417	729,255	4,28,554	2,12,636	1,11,181	15,643	2,831	16,851	42,150	2,787	47,323
	11,68,351	1,22,687	12,34,968	12,77,948	3,34,914	27,827	28,75,697	12,90,788	2,143,669	8,42,636	1,40,423	1,10,023	29,252	2,716	36,338	56,853	.....	.....

\* One maund of paddy is equivalent to 25 seers of rice.

† Exclusive of bags obtained by local manufacture.

The Sea-borne Trade of Calcutta in these Staples during the month of September 1884 was as follows.—

EXPORTED FROM CALCUTTA—																			
To Indian ports, viz.—																			
Bombay	40,650	.....	40,650	80	.....	40,730	2,096	463,750	.....	.....	912	.....	.....	339	.....	.....	.....	.....	.....
Madras	71	.....	71	449	8,026	111	8,657	477,633	367	.....	5	.....	507	61	.....	.....	.....	.....	.....
Other ports in Madras	14,202	.....	14,202	109	1,574	.....	16,185	2,707	.....	1	71	.....	33	1	.....	.....	.....	.....	.....
British Burmah	2,473	.....	2,473	31	4,239	26	6,819	231	234,000	1	.....	17	10	8	302	85	.....	16,373	.....
Other Indian ports	.....	.....	.....	890	.....	890	.....	168,900	.....	.....	6	1	2	1,071	38	.....	1,663	.....	.....
Pondicherry	.....	.....	.....	82	50	.....	132	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....
Total of Inter-portal trade	57,596	.....	57,596	671	15,209	137	73,413	5,934	1,344,283	369	71	942	11	530	1,774	123	.....	17,838	.....
To Foreign ports—																			
United Kingdom	29,193	.....	29,193	1,80,142	1,05,850	.....	3,15,185	7,27,863	607,190	4,14,047	1,45,967	1,10,041	1,047	315	.....	.....	.....	3,780	.....
Other Foreign ports	3,43,090	2,722	3,41,391	33,900	18,242	11,793	4,09,386	1,22,831	7,485,512	96,798	.....	1,123	536	962	.....	.....	.....	1,328	.....
Total of Foreign trade	3,72,283	2,722	3,74,594	2,14,102	1,24,092	11,793	7,24,571	8,50,694	8,092,702	5,10,845	1,45,967	1,11,164	1,583	1,277	.....	.....	.....	5,113	.....
Grand Total (1884 of Exports in Sept. 1883)	4,30,379	2,724	4,31,980	2,14,773	1,39,301	11,930	7,27,984	8,56,628	9,436,985	5,11,214	1,46,038	1,12,105	1,594	1,327	1,774	123	.....	22,961	.....



The following Statement shows the several Routes followed by the Trade in the Principal Staples of Traffic imported into Calcutta during the month of September 1884.

## IMPORTS INTO CALCUTTA.

SPECIFICATION OF ROUTES.	FOOD-GRAINS.					FIBROUS PRODUCTS.		OILSEEDS.		Tea, Indian.	Cotton, raw.	Silk, raw.	SUGAR.		TOBACCO.	
	Rice.	Paddy.	Wheat.	Gram and pulses.	Other food-grains.	Jute, raw.	Gunny-bags.	Linseed.	Mustard-seed.				Drain- ed.	Un- drained.	Bis- path.	Other kinds.
By country boats ...	Mds. 6,18,120	Mds. 97,572	Mds. 1,15,050	Mds. 1,94,992	Mds. 20,599	Mds. 3,75,253	No. 662,002	Mds. 1,93,294	Mds. 1,25,012	Mds. ....	Mds. 3,894	Mds. 435	Mds. 7,720	Mds. 31,729	Mds. 1,489	Mds. 17,157
" river steamers ...	104	.....	74,932	56,204	3,857	1,79,893	.....	2,31,497	26,850	77,653	167	20	.....	.....	.....	.....
" rail { East Indian ...	3,933	.....	.....	15,656	11,201	10,31,280	19,933	1,763	9,363	30,610	4,290	1,350	3,053	2,141	.....	2,309
" Cal. and South- Eastern ...	6,788	.....	.....	.....	.....	104	.....	.....	2	.....	57	399	467	6,023	1,598	17,027
" road ...	41,862	4,368	16	.....	.....	37,706	45,150	.....	.....	.....	317	.....	.....	.....	.....	.....
" sea ...	48,630	24,916	.....	24,840	.....	272	2,150	.....	.....	1,563	7,118	427	6,611	1,255	.....	10,434
Grand Total of Imports in { 1884 ...	7,22,437	1,28,756	1,90,871	2,91,692	35,657	16,24,417	729,253	4,28,554	2,12,636	1,11,181	15,643	2,681	16,851	42,159	2,787	47,323
" September... { 1883 ...	11,58,351	1,25,587	12,77,948	3,34,914	27,867	12,90,788	2,143,669	8,42,636	1,40,423	1,10,025	29,252	2,716	35,338	56,853	.....	.....

The following Statement shows the Values, Quantities, and Numbers of the Principal Staples of Traffic exported Inland from Calcutta during the month of September 1884.

## EXPORTS FROM CALCUTTA.

Whither exported.	Cotton piece-goods.		Cotton twist.		Salt.	Gunny-bags.	Whither exported.	Cotton piece-goods.		Cotton twist.		Salt.	Gunny-bags.
	European.	Indian.	European.	Indian.				European.	Indian.	European.	Indian.		
<b>BENGAL.</b>	Rs.	Rs.	Mds.	Mds.	Mds.	No.	<b>CHOTA NAGPORE.</b>	Rs.	Rs.	Mds.	Mds.	Mds.	No.
Burdwan ...	3,24,672	110	485	1,242	25,018	8,143	Hazaribagh ...	65,592	.....	1	191	10,158	1,505
Beerbhoom ...	3,12,912	330	80	277	19,773	7,175	Manbhum ...	1,84,248	.....	34	1,668	7,308	875
Midnapore ...	1,16,866	.....	707	.....	53,306	4,205	Total of Chota Nagpore	2,49,840	.....	35	1,859	17,466	2,389
Booghly ...	1,28,123	11,407	731	78	14,008	38,640	Grand Total of supplies into the provinces under the Lieutenant-Governor of Bengal.	71,48,800	59,198	9,533	7,071	7,55,739	563,026
24-Pergunnahs ...	1,21,854	27,891	293	.....	28,289	6,636	<b>OTHER PROVINCES.</b>						
Nuddea ...	5,70,544	.....	793	.....	19,702	19,702	Assam ...	4,47,192	.....	1,426	.....	36,137	.....
Khulna ...	49,020	.....	20	.....	5,405	.....	North-Western Provinces and Oudh ...	22,75,416	17,160	2,876	1,933	19,703	317,375
Jessore ...	91,800	.....	128	.....	29,884	540	Punjab ...	12,61,872	59,950	1,823	74	.....	109,715
Moorsheadabad ...	2,71,000	13,090	2	23	13,510	13,535	Central Provinces ...	38,634	.....	604	17	.....	12,390
Dinapore ...	63,537	.....	352	.....	9,026	.....	Rajputana States ...	17,250	.....	122	.....	.....	105
Rajshahye ...	1,62,784	.....	85	.....	26,705	3,650	Bomday ...	3,859	110	.....	.....	.....	463,750
Rungpore ...	5,06,000	.....	253	.....	13,086	429	Madras ...	94,750	463	2,844	15	.....	477,633
Bogra ...	83,888	220	31	.....	5,268	210	British Burmah ...	1,91,432	.....	731	2,543	.....	234,000
Pubna ...	1,45,296	.....	180	.....	71,929	6,955	Other places ...	17,550	1,745	.....	.....	.....	8,092,762
Darjeeling ...	88,344	410	104	.....	741	2,690	Grand Total of { 1884 ...	1,14,98,860	1,38,623	19,899	11,633	8,11,679	10,330,696
Duipigore ...	1,51,416	.....	180	.....	16,196	70	Exports in Sept. { 1883 ...	1,37,65,941	1,10,369	24,259	10,004	5,03,416	8,943,963
Dacca ...	6,32,500	220	1,271	778	47,631	1,853							
Furzedpore ...	4,97,956	.....	440	.....	31,843	1,470							
Backergunge ...	67,372	.....	.....	.....	22,815	.....							
Mymensingh ...	.....	.....	.....	.....	13,225	.....							
Tipperah ...	.....	.....	.....	.....	2,275	.....							
Chittagong ...	86,900	3,050	156	.....	950	10,800							
Noakholly ...	1,400	.....	52	.....	5,975	.....							
Total of Bengal...	42,76,634	56,758	6,253	2,398	4,68,988	126,616							
<b>BEHAR.</b>													
Patna ...	5,30,496	330	198	374	91,250	153,370							
Gya ...	1,33,776	.....	26	140	17,379	455							
Shahabad ...	1,70,490	660	1	449	22,467	19,329							
Muzafferpore ...	37,584	.....	18	.....	8,698	2,240							
Durbhanga ...	2,20,320	.....	7	405	42,187	29,475							
Saran ...	.....	.....	.....	.....	3,909	455							
Chumpanun ...	5,62,392	.....	.....	17	6,217	7,525							
Monahy ...	1,34,493	440	25	222	19,100	20,383							
Shahpur ...	2,04,408	550	69	153	17,809	17,815							
Purneah ...	1,76,904	110	90	400	15,211	459							
Majid ...	.....	.....	.....	.....	4,825	3,250							
Sonthal Pergunnahs ...	4,30,560	.....	72	499	20,222	21,499							
Total of Behar...	26,10,532	2,090	494	2,683	2,69,235	275,930							
<b>ORISSA.</b>													
Cuttack ...	7,400	350	2,783	131	.....	20,500							
Balasore ...	6,900	.....	18	.....	.....	137,690							
Total of Orissa...	12,400	350	2,801	131	.....	153,190							

The Sea-borne Trade of Calcutta in these Staples during the month of September 1884 was as follows:-

IMPORTED INTO CALCUTTA—	Rs.*	Rs.	Mds.	Mds.	Mds.	No.
From Foreign Ports—						
United Kingdom ...	84,18,283	.....	10,448	.....	5,79,524	.....
Other Foreign ports ...	32,303	.....	363	.....	97,379	.....
Total of Foreign Trade ...	84,50,586	.....	10,813	.....	6,77,103	.....
From Indian Ports—						
Bombay ...	3,40,813	7,415	.....	4,850	33,283	.....
Madras ...	9,375	.....	.....	.....	.....	.....
Other ports in Madras ...	.....	.....	.....	.....	.....	.....
British Burmah ...	2,100	100	15	.....	2,980	.....
Other Indian ports ...	45	.....	2	.....	.....	1,000
Total of Interport Trade ...	3,58,333	7,515	17	4,856	35,243	2,150
Grand Total of { 1884 ...	88,08,919	7,515	10,830	4,856	7,12,346	2,150
Imports in Sept. { 1883 ...	80,95,469	4,85,993	9,542	9,842	7,69,040	2,150

The following Statement shows the several Routes followed by the Trade in the Principal Staples of Traffic exported from Calcutta during the month of September 1884.

SPECIFICATION OF ROUTES.	COTTON PIECE-GOODS.		COTTON TWIST.		Salt.	Gunny-bags.
	European.	Indian.	European.	Indian.		
By country boats ...	Rs. 3,10,430	Rs. 27,995	Mds. 1,949	Mds. ....	Mds. ....	No. 102,881
" river steamers ...	6,04,748	.....	2,511	778	4,17,363	10,287
" rail { East Indian ...	75,48,608	92,840	6,532	8,133	2,08,694	766,080
" Eastern Bengal ...	26,72,801	880	2,535	.....	80,680	22,155
" Calcutta and South-Eastern ...	5,472	.....	.....	.....	53	945
" road ...	1,48,015	11,303	750	48	4,059	1,650
" sea ...	4,08,786	5,610	6,522	2,639	.....	9,430,985
Grand Total of Exports in September... { 1884 ...	1,14,98,860	1,38,628	19,899	11,633	8,11,679	10,330,696
" September... { 1883 ...	1,37,65,941	1,10,369	24,259	19,004	5,03,416	8,943,963

\* As per tariff declaration value.

## Meteorological Report of the Province of

METEOROLOGICAL DIVISION.	DISTRICT	Representative station.	STATION OBSERVATIONS.													Average humidity at 10 A. M.	Average cloud amount at 10 A. M. for week
			AIR PRESSURE.			WIND.		TEMPERATURE.									
			Mean barometric height, 10 A.M.	Mean reduced to sea-level.	Variation from mean.	Prevailing direction.	Mean wind velocity.	Highest during week.	Lowest during week.	Mean maximum temperature.	Mean minimum temperature of week.	Mean daily temperature of week.	Variation from normal mean of week.	Mean 10 A. M. temperature.			
ORISSA.	Pooree	Gopalpore	30.124	30.174	—	NNW	257	77.6	58.0	75.7	60.9	68.3	—	73.5	65	2.1	
		False Point	30.148	30.170	+0.035	NE	93	78.4	53.0	77.1	56.9	67.0	-0.2	72.5	67	3.1	
	Cuttack	Cuttack	30.000	30.174	+0.047	Calm	24	82.8	53.9	81.9	58.2	70.1	-0.1	73.8	53	1.2	
	Balasore	Balasore	30.134	30.195	—	NNE	43	70.5	51.6	78.6	53.3	66.0	—	71.1	59	0.1	
	South-West Midnapore	Saugor Island	30.155	30.182	+0.048	NNE	151	76.7	56.9	75.6	53.3	67.0	0	69.5	73	5.0	
SOUTH-WEST BENGAL.	South 24 Pergunnahs	Midnapore	30.042	30.198	—	N	57.5	70.3	52.7	78.1	53.4	65.8	—	71.0	54	1.3	
	24-Pergunnahs	Calcutta	30.155	30.177	+0.058	NNE	69	77.1	54.3	76.2	55.7	66.0	+0.6	68.3	64	0.	
	Howrah																
	Hooghly																
	Burdwan	Hardwan	30.087	30.191	+0.059	N	35.9	78.3	54.8	77.2	56.6	66.9	+0.8	68.6	55	1.4	
	Bankoora																
	Beerbhoom	Ranigunge	29.854	—	—	NW	66	78.8	51.2	77.6	53.3	65.5	—	68.0	55	1.7	
	West Burdwan																
	Moorsheadabad	Berhampore	30.078	30.147	+0.019	NW	38.0	78.4	55.2	77.1	56.0	66.6	+0.9	68.0	60	0.6	
	Nuddea	.....															
EAST BENGAL.	Jessore	Jessore	30.136	30.171	+0.051	NNW	31	78.2	51.5	77.6	53.2	65.4	-0.3	70.8	65	1.4	
	Khoolna																
	Chittagong	Chittagong	30.070	30.163	+0.067	NE & calm	38	80.1	54.4	78.0	56.0	67.0	-1.1	69.5	79	2.1	
	Chittagong Hill Tracts	Demagiri															
	Backergunge	Barrisal	30.094														
	Noakholly	Noakholly	—	—	—	Calm	41.3	79.0	50.5	77.5	53.6	65.6	—	71.2	64	0	
	Furriedpore	Furriedpore	30.084	—	—	ENE	19	77.5	52.0	76.4	54.3	65.4	—	72.0	58	0	
	Dacca	Dacca	30.137	30.160	+0.066	Calm	14	78.8	54.1	77.9	55.3	66.6	-0.6	72.4	69	0	
	Commillah	Commillah	30.114	30.151	—	NW	12.3	80.4	52.1	79.0	53.1	66.1	—	72.0	68	0	
	Mymensingh	Mymensingh	30.084	—	—	NNE	56	80.4	47.1	77.8	51.0	64.4	—	75.8	46	3.1	
NORTH BENGAL.	Bogra and Pubna	Serajgunge	30.119	30.167	—	ENE	30.4	78.3	50.6	77.1	52.9	65.0	—	69.5	70	1.0	
		Bogra	—	—	—	NE	225.7	77.9	52.7	77.7	54.4	65.9	—	69.3	66	0.0	
	Rajshahye	Rampore Beaulah	30.076	30.152	—	N	21.4	71.6	48.7	70.2	50.5	60.4	—	70.4	62	0.0	
	Dinapore	Dinapore	30.039	30.165	—	NE	52.1	78.6	49.7	77.7	51.4	64.6	—	68.8	66	0.3	
	Rungpore	Rungpore	30.043	30.174	—	NNE	36	72.0	48.3	77.5	51.4	64.5	—	68.5	74	0	
	Julpigoree	Julpigoree	29.858	30.156	—	E	52.0	77.9	51.1	77.1	52.9	65.0	—	71.2	61	0.9	
	Cooch Behar																
	Darjeeling Hill Districts	Darjeeling	23.090	—	—	W & Calm	39.6	49.8	32.9	48.3	34.2	41.3	—	45.0	79	3.3	
	Purneah	Purneah	30.052	30.185	+0.076	Calm	5.7	78.5	43.8	77.5	48.1	62.8	+0.1	67.0	70	1.3	
	North Bhagulpore																
SOUTH BENGAL.	Mozufferpore	Durbhunga	30.029	30.205	+0.082	WNW	51	75.9	49.5	74.4	53.5	64.0	+0.9	66.5	68	0	
	Durbhunga																
	Chumparan	Motihari	29.959	30.190	—	SW & NW	105.2	75.9	42.3	75.0	45.7	60.3	—	66.2	61	0.4	
	Saran	Chupra	29.980	—	—	W & calm	23.2	76.5	48.7	75.2	50.8	63.0	—	67.6	58	0.1	
		Dehree	29.838	30.213	—	S, NW	111.0	67.42	49.0	65.12	55.3	60.22	—	65.4	63	0.9	
	Shahabad	Buxar	29.944	30.198	—	WNW	61.6	76.4	45.4	74.8	50.0	62.4	—	69.1	56	0.3	
		Arrah	29.976	30.183	—	NNW	8.0	75.3	46.0	73.7	49.4	61.6	—	65.3	61	0	
	Gya	Gya	29.793	30.189	—	Calm	15.9	78.3	44.1	76.5	49.0	62.3	-0.8	69.2	62	1.4	
	Patna	Bankipore	30.038	30.232	+0.071	W	33.5	74.7	48.8	73.9	52.6	63.3	+1.6	65.9	62	0.3	
	South Bhagulpore	Bhagulpore	30.014	30.184	—	W	23	76.4	46.0	75.0	51.1	65.1	—	68.6	62	0	
CHOTA NAGPORE.	Sonthal Pergunnahs	Deonka	29.665	—	—	NNW	77.7	77.2	48.4	75.6	52.1	63.8	—	67.3	74	0	
	Hazaribagh	Hazaribagh	28.109	30.190	+0.046	N, SSE	69.4	72.2	60.8	71.3	52.1	61.7	+1.2	65.4	61	1.3	
	Lohardugga	Ranchee	27.968	30.166	—	—	—	72.3	48.9	70.5	50.2	60.4	—	64.7	60	1.9	
	Manbhoom																
Singbhoom	Chyebassa	29.373	—	—	N	161.4	—	50.2	—	50.8	—	—	69.1	55	0.9		

\* Mean for five days.

*Explanation.—Summary.*—The normal means of air pressure and temperature are the arithmetical averages or means of the readings during the same period. The humidity of the atmosphere is expressed as a percentage, saturated air being represented by 100. A clear sky is denoted by 0 and an overcast sky by 100. The normal means of the numerical means or averages of the rainfall in that district determined from the returns sent in by the sub-divisions from the district (i.e.), the total rainfall at the sub-divisional stations in the district sending in returns divided by the number of stations. A rainy



for the week ending Friday, the 19th of December 1884.

Rainfall of week at observing stations.	DISTRICT OBSERVATIONS.										Representative station.	DISTRICT.	METEOROLOGICAL DIVISION.
	RAINFALL.												
	Of week.		Since 1st of month.			Since 15th May.			Average number of rainy days.	Normal number of rainy days.			
	Mean for district.	Normal mean.	Mean for district.	Normal mean.	Variation.	Mean for district.	Normal mean.	Variation.					
Nil	—	—	—	—	—	—	—	—	—	—	Gopalpore	Pooree	ORISSA.
Nil	Nil	0'01	Nil	0'56	-0'56	49'49	57'68	-8'19	0'0	0'1	False Point	Cuttack	
Nil	Nil	Nil	Nil	0'44	-0'44	47'65	52'06	-5'01	0'0	0'0	Cuttack	Cuttack	
Nil	Nil	Nil	Nil	0'23	-0'23	56'08	53'57	+2'51	0'0	0'0	Balasore	Balasore	
Nil	Nil	0'02	Nil	0'33	-0'33	69'59	61'93	+7'66	0'0	0'1	Saugor Island	South-West Midnapore	SOUTH-WEST BENGAL.
Nil	Nil	Nil	Nil	0'20	-0'20	43'01	50'01	-7'00	0'0	0'0	Midnapore	South 24-Pergunnahs	
Nil	Nil	Nil	Nil	0'27	-0'27	49'03	51'05	-2'02	0'0	0'0	Calcutta	24-Pergunnahs	
Nil	Nil	Nil	Nil	0'15	-0'15	35'92	46'33	-10'41	0'0	0'0	Burdwan	Howrah	
Nil	Nil	Nil	Nil	0'19	-0'19	38'94	51'16	-12'22	0'0	0'0	Burdwan	Hooghly	EAST BENGAL.
Nil	Nil	Nil	Nil	0'15	-0'15	35'42	49'74	-14'32	0'0	0'0	Ranigunge	Bankoora	
Nil	Nil	Nil	Nil	0'14	-0'14	36'42	49'46	-13'04	0'0	0'0	Ranigunge	Beerbhoom	
Nil	Nil	Nil	Nil	0'26	-0'26	53'11	53'18	-0'07	0'0	0'0	Ranigunge	West Burdwan	
Nil	Nil	0'03	Nil	0'58	-0'58	106'64	112'28	-5'64	0'0	0'2	Herhampore	Moorsheadabad	NORTH BENGAL.
Nil	Nil	Nil	Nil	0'64	-0'64	62'66	86'37	-23'71	0'0	0'0	Jessore	Nuddea	
Nil	Nil	0'02	Nil	0'51	-0'51	83'11	76'76	+6'35	0'0	0'1	Chittagong	Jessore	
Nil	Nil	0'02	Nil	1'01	-1'01	95'44	110'96	-15'52	0'0	0'1	Demagiri	Khoolna	
Nil	Nil	0'01	Nil	0'13	-0'13	43'88	56'03	-12'15	0'0	0'1	Barrisai	Chittagong Hill Tracts	NORTH BENGAL.
Nil	Nil	0'01	Nil	0'22	-0'22	47'81	58'86	-11'05	0'0	0'1	Noakholly	Backergunge	
Nil	Nil	0'01	Nil	0'39	-0'39	64'15	71'30	-7'15	0'0	0'0	Farreedpore	Noakholly	
Nil	Nil	0'02	Nil	0'17	-0'17	46'04	68'67	-22'63	0'0	0'1	Furreedpore	Furreedpore	
Nil	0'04	0'01	0'04	0'16	-0'12	37'77	55'97	-18'14	0'2	0'1	Dacca	Dacca	NORTH BENGAL.
Nil	Nil	Nil	Nil	0'13	-0'13	34'06	53'24	-19'18	0'0	0'0	Commillah	Commillah	
Nil	0'01	Nil	0'01	0'18	-0'17	38'75	56'56	-17'81	0'2	0'0	Mymensingh	Mymensingh	
Nil	Nil	0'02	Nil	0'13	-0'13	49'70	75'23	-25'53	0'0	0'1	Serajungoo	Bogra and Pubna	
0'18	Nil	0'13	Nil	0'22	-0'22	113'61	152'29	-38'68	0'0	0'3	Bogra	Bogra	NORTH BENGAL.
Nil	Nil	Nil	Nil	0'06	-0'06	46'18	57'65	-11'47	0'0	0'0	Rampore Beaulah	Rajshahye	
Nil	Nil	0'06	Nil	0'20	-0'20	95'25	114'04	-18'79	0'0	0'2	Dinagopore	Dinagopore	
0'18	Nil	0'13	Nil	0'22	-0'22	113'61	152'29	-38'68	0'0	0'3	Rungpore	Rungpore	
Nil	Nil	0'06	Nil	0'20	-0'20	95'25	114'04	-18'79	0'0	0'2	Julpigoree	Julpigoree	NORTH BENGAL.
0'18	Nil	0'13	Nil	0'22	-0'22	113'61	152'29	-38'68	0'0	0'3	Cooch Behar	Cooch Behar	
Nil	Nil	Nil	Nil	0'06	-0'06	46'18	57'65	-11'47	0'0	0'0	Darjeeling	Darjeeling Hill Districts	
Nil	Nil	Nil	Nil	0'06	-0'06	46'18	57'65	-11'47	0'0	0'0	Parneah	Parneah	
Nil	Nil	Nil	Nil	0'02	-0'02	31'69	42'15	-10'46	0'0	0'0	North Bhagulpore	North Bhagulpore	NORTH BENGAL.
Nil	Nil	Nil	Nil	0'02	-0'02	31'69	42'15	-10'46	0'0	0'0	Mozufferpore	Mozufferpore	
Nil	Nil	Nil	Nil	0'02	-0'02	41'79	43'05	-1'26	0'0	0'0	Durbhunga	Durbhunga	
Nil	Nil	Nil	Nil	0'01	-0'01	30'52	40'78	-10'26	0'0	0'0	Motihari	Chumparan	
Nil	Nil	Nil	Nil	0'01	-0'01	29'10	39'07	-9'97	0'0	0'0	Chupra	Saran	NORTH BENGAL.
Nil	Nil	Nil	Nil	0'01	-0'01	29'10	39'07	-9'97	0'0	0'0	Dehree	Shahabad	
Nil	Nil	Nil	Nil	0'01	-0'01	29'10	39'07	-9'97	0'0	0'0	Buxar	Shahabad	
Nil	Nil	Nil	Nil	0'01	-0'01	29'10	39'07	-9'97	0'0	0'0	Arran	Shahabad	
Nil	Nil	Nil	Nil	0'01	-0'01	29'00	40'34	-11'34	0'0	0'0	Gya	Gya	SOUTH BENGAL.
Nil	Nil	Nil	Nil	0'01	-0'01	29'00	40'34	-11'34	0'0	0'0	Bankipore	Patna	
Nil	Nil	Nil	Nil	0'02	-0'02	31'05	41'90	-10'85	0'0	0'0	Bhagulpore	South Bhagulpore	
Nil	Nil	Nil	Nil	0'02	-0'02	31'05	41'90	-10'85	0'0	0'0	Mongnyr	Mongnyr	
Nil	Nil	Nil	Nil	0'08	-0'08	33'44	48'67	-15'23	0'0	0'0	Doomsa	Sonthal Pergunnahs	SOUTH BENGAL.
Nil	Nil	Nil	Nil	0'07	-0'07	34'10	46'60	-12'50	0'0	0'0	Hazaribagh	Hazaribagh	
Nil	Nil	Nil	Nil	0'11	-0'11	36'98	47'20	-10'22	0'0	0'0	Kanchee	Lonardugga	
Nil	Nil	0'03	Nil	0'26	-0'26	44'07	51'22	-7'15	0'0	0'1	Manbroom	Manbroom	
Nil	Nil	0'03	Nil	0'26	-0'26	44'07	51'22	-7'15	0'0	0'1	Chyenassa	Singhoom	CEYLON NAG. FORE.

period for the past ten years. The variations are negative when the mean for the week is less than the corresponding normal mean, and positive when greater. by 10. The number denoting cloud amount represents the part of the sky covered, the whole sky being denoted by 10. Under the head "district observational stations for the period in question during the past 12 years. The means for the "district" are the numerical averages of the rainfall returns received day is one on which at least an hundredth of an inch fell.

## Statement of Rainfall in Bengal for the week ending Friday (6 p.m.), the 19th December 1884.

Meteorological division.	District.	Station.	RAINFALL.							TOTAL.		Total rain-fall from 1st to 19th December 1884.	Average total rain-fall from 1st to 19th December.	Total rain-fall since 15th May 1884.	Average rainfall from 15th May to date.
			Saturday, 13th December.	Sunday, 14th December.	Monday, 15th December.	Tuesday, 16th December.	Wednesday, 17th December.	Thursday, 18th December.	Friday, 19th December.	Number rainy days.	of Rainfall week.				
ORISSA	Poores	Poores	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.50	58.83	52.90
		Khurdah	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.34	50.17	55.67
		Banpur	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.01	37.01	51.94
		False Point	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.79	61.94	67.23
		Hookitola	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	?	36.76	?
	Cuttack	Jagatsingapore	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.25	54.40	46.91
		Banki	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	?	45.12	?
		Cuttack	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.25	50.63	50.76
		Kendrapara	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.59	40.65	53.63
		Jajpore	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.70	44.92	53.65
	Balasore	Chandbali	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.63	59.95	54.26
		Bhuddruck	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.22	58.20	51.14
		Sorah	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.11	45.37	51.97
		Palasore	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.37	67.59	57.33
		Jaisore	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.03	50.53	53.37
SOUTH-WEST BENGAL.	Midnapore	Contai	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.40	68.85	62.41
		Saugor Island	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.53	75.04	63.38
		Tumlook	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.25	45.00	50.26
		Midnapore	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.11	48.15	47.23
		Ghatatal	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.24	37.88	52.50
	24-Pergunnahs	Diamond Har- bour.	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.23	66.29	58.08
		Alipore Jail	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.35	57.88	54.28
		Barrackpore	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.29	48.80	48.16
		Dum-Dum	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.28	55.48	50.76
		Baraset	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.28	45.33	48.85
	Howrah	Buseerhat	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.24	50.32	53.14
		Howrah	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.31	46.63	51.23
		Mohesreka (Ooloberiah.)	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.29	45.40	52.19
		Serampore	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.27	56.75	49.11
		Hooghly	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.27	39.23	47.38
	Hooghly	Hooghly	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.10	34.42	54.71
		Jehanabad	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	?	?	?
	Burdwan	Culina	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.23	38.70	43.57
		Burdwan	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.19	35.32	47.87
		Cutwa	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.05	35.75	47.29
		Raneegunge	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.07	49.03	46.70
		Bankoora	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.14	54.80	50.10
	Bankoora	Indas	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	?	?	?
		Bishenpore	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.27	35.48	49.26
		Kotulpur	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	?	?	?
		Mahara	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.22	34.53	45.41
		Onda	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	?	?	?
	Beerbhoom	Khatra	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.39	46.26	56.00
		Bh. Soory	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.10	41.68	53.59
		Hetampore	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.16	52.13	52.13
	Nuddea	Bongong	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.20	35.90	51.51
		Ranaghat	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.18	38.93	46.95
		Kishnagar	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.03	20.72	46.47
		Choodanga	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.10	37.44	51.24
		Meherpore	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.11	34.72	47.03
	Khoolna	Koosita	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.11	41.81	54.14
		Satkira	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.40	62.47	53.55
		Bagirhat	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.32	65.14	60.29
		Khoolna	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.34	64.64	54.63
	Jessore	Narail	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.23	31.01	48.93
		Jessore	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.29	61.76	53.17
		Jhenidah	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.19	48.80	53.70
		Magoorah	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.15	44.13	48.61
	Moorshedabad	Kandi	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.18	35.62	50.66
		Rampore Haul	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.20	33.12	50.07
		Berhampore	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.14	32.64	51.44
		Lalbagh	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.21	34.95	48.40
		Azimungo	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.12	30.94	49.83
EAST BENGAL	Cox's Bazar	Jungipore	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.10	33.42	47.48
		Lalgaia	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.12	39.26	49.64
		Cox's Bazar	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.36	128.88	132.02
		Chittagong	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.81	84.38	12.53
		Chittagong	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	?	?	?
	Chittagong Hill Tracts.	Ranvamat	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.64	62.66	85.37
		Kaicha	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	?	82.40	?
		Agariola	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.43	54.78	64.07
		Backergunge	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.58	84.20	88.32
		Patuakhally	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.35	51.28	68.85
	Backergunge	Perozepore	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.39	79.92	56.51
		Burrisal	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.74	87.09	83.35
		Bhola	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	?	?	?
	Noakholly	Noakholly	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.70	97.64	110.59
		Fenny	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	1.33	93.24	111.28
	Furreedpore	Madaripore	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.16	46.31	56.00
		Furreedpore	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.12	47.47	53.07
		Gosalundo	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.11	37.87	54.04
	Dacca	Munshigunge	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.36	56.74	72.09
		Dacca	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.19	42.84	50.54
		Naraingunge	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	?	46.84	?
		Manickgunge	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.12	43.84	49.39
		Comilla	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.55	77.04	75.90
	Comilla	Chandpore	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.31	61.39	54.76
		Brahmunberia	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.27	63.49	62.01
	Mymensingh.	Kishoregunge	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.17	42.67	71.59
		Atia	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.11	28.51	57.71
		Mymensingh	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.16	61.40	75.29
		Jamalpore	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.23	42.11	66.89
		Netrokona	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	?	63.91	?



## Statement of Rainfall in Bengal for the week ending Friday (6 p.m.), the 19th December 1884—concluded.

Meteorological division.	District.	Station.	RAINFALL.							TOTAL.		Total rainfall from 1st to 19th December 1884.	Average total rainfall from 1st to 19th December.	Total rainfall since 15th May 1884.	Average rainfall from 15th May to date.
			Saturday, 13th December.	Sunday, 14th December.	Monday, 15th December.	Tuesday, 16th December.	Wednesday, 17th December.	Thursday, 18th December.	Friday, 19th December.	Number of rainy days.	Rainfall of week.				
NORTH BENGAL	Pabna	Pabna	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.10	42.34	54.08
		Serajgunge	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.10	40.13	52.49
	Bogra	Sherpore	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.25	57.23	61.57
		Nowkhilla	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.16	38.10	55.22
		Bogra	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.09	37.08	61.23
		Panchbibi	Nil	0.23	Nil	Nil	Nil	Nil	Nil	1	0.23	0.23	0.22	40.20	53.46
	Rajshahye	Beaulah	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.11	33.09	53.68
		Natore	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.13	36.16	56.54
	Maldah	Nowgong	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	?	43.88	?
		Maldah	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	?	43.88	?
	Dinapore	Mohadebore	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.17	33.81	50.61
		Churamon	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.25	33.08	58.09
		Raigunge	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.23	44.61	49.88
		Dinapore	Nil	0.05	Nil	Nil	Nil	Nil	Nil	1	0.05	0.05	0.17	42.29	54.58
	Raigunge	Baloorghat	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.07	34.13	63.00
		Bhawanigunge (Gyabanda)	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	?	37.72	?
		Raigunge	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.15	43.37	62.86
		Kurigram	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.07	56.57	74.38
	Julpigoree	Bagdogra (Nulphamari)	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.08	48.87	74.28
		Julpigoree	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.20	48.99	90.69
	Cooch Behar	Dinhat	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.07	101.56	116.03
		Cooch Behar	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.38	84.38	99.18
		Mickligunge	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.10	119.02	118.50
		Matabhanga	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.28	84.74	110.63
	Darjeeling Hill	Buxa	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.19	86.55	123.01
		Siliguri	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.28	131.09	196.40
		Darjeeling	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	?	85.43	?
		Kalimpong	Nil	0.18	Nil	Nil	Nil	Nil	Nil	1	0.18	0.18	0.16	96.15	108.11
NORTH BHAR	Purneah	Kissengunge	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.07	65.75	67.00
		Arrareah	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.06	51.62	62.78
	North Bhagulpore	Purneah	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.14	46.39	60.78
		Madhapore	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.01	37.86	49.35
	Durbhunga	Scoopool	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.04	29.29	43.31
		Tajpore	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.01	33.77	40.24
	Mozufferpore	Durbhunga	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.02	30.33	41.24
		Madhubani	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.01	40.62	43.00
	Sitamarhi	Sitamarhi	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.02	36.93	39.76
		Mozufferpore	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.02	32.43	44.43
	Hajipore	Hajipore	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.03	34.08	41.15
		Motihari	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.03	41.51	41.15
	Chumparun	Bettian	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.02	44.53	47.46
		Gopalgunge	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.01	39.36	43.76
	Sarun	Sewan	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.01	28.75	43.33
		Chuprah	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.01	32.38	38.23
NORTH BHAR	Shahabad	Buxar	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	28.79	37.45
		Dehree	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	?	31.27	?
		Bhuboah	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	?	28.94	?
		Sasseram	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.01	34.64	40.62
	Gya	Arrah	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.02	24.21	40.15
		Aurungabad	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	24.21	38.00
		Gya	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	38.28	40.11
		Nowadah	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	23.96	40.25
	Patna	Jehanabad	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.01	21.52	35.88
		Patna	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	27.20	38.70
		Dinapore	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.01	29.84	40.68
		Behar	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.01	36.25	39.07
	Monghyr	Barrh	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.01	18.05	41.97
		Begowaserai	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	?	31.53	39.53
		Monghyr	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.01	25.30	38.70
		Jamui	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.01	31.39	46.29
	South Bhagulpore	Bhagulpore	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.01	35.70	41.31
		Bansa	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.04	?	?
		Rajmehal	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.05	25.68	39.68
		Gooda	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.06	32.47	43.60
NORTH BHAR	Sonthal Pergunnahs	Pakour	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.10	25.11	48.54
		Nya Doomka	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.08	34.92	45.86
		Deognur	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.10	29.90	61.84
		Jamtara	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.02	31.11	45.63
	Hazaribagh	Jamtara	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.10	47.13	45.35
		Pachamba	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.06	28.55	45.78
		Hazaribagh	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.07	38.59	45.55
		Semtagurh	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.07	33.80	45.63
	Lohardugga	Mahudi Hills	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.08	35.44	45.08
		Lohardugga	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	?	40.44	?
		Ranchi	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.11	49.91	51.02
		Palamow	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.06	29.67	41.97
	Singbhoom	Chyobassa	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.26	44.07	51.22
		Purulia	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.14	38.25	49.31
	Manbhoom	Gobinapore	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.12	30.15	46.45
		Gobinapore	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	?	?	?

Explanation.—Indicates that no rain has fallen. If the return for any day has not been received, the corresponding space is left blank. If any of the returns wanting, the corresponding spaces in the total rainfall columns are left blank.

CALCUTTA, the 22nd December 1884.

**SUMMARY OF THE METEOROLOGICAL AND RAINFALL OBSERVATIONS  
TAKEN IN BENGAL DURING THE WEEK ENDING THE 19TH DECEMBER 1884.**

THE meteorological conditions in Bengal, during the week ending the 19th, have been of the usual cold-weather character. At the close of the preceding week a fairly strong north-east monsoon was blowing over the whole Province, the cold-weather conditions in Bengal being intensified by the fact that the monsoon current blowing on the Madras coast was also of considerable strength. These conditions continued up to the 12th instant, but from the 13th to the 15th the Madras current weakened, and the rainfall on the Madras coast almost ceased, though there were some heavy showers in Ceylon. Rain was, however, probably falling at sea, and this accompanied or gave rise to a small cyclonic storm, the first indications of which were noticed on the 16th instant, and which developed slightly on the 17th, and approached the Madras coast on the 18th, striking it on that day between Madras and Negapatam, and passing across the greater part of the south of the Peninsula. The storm was not, however, accompanied by very strong winds, though it brought extremely heavy rain to some stations in its path, and Negapatam on the 19th reported no less than 10·34 inches of rain.

During the formation of this small storm, the north-east monsoon in Bengal rather fell off in strength, and winds became feeble and somewhat variable, though a very strong easterly set was noticeable in many instances. Temperature also commenced to rise with the alteration of wind direction, and in many instances humidity increased, though when the storm reached the land, and a strong monsoon again commenced to blow on the 18th and 19th instant over the southern coasts, these conditions were again reversed.

**Pressure**—Was at the commencement of the week considerably above the normal, but on the 13th and 14th a rather rapid fall occurred, which was followed on the 15th, 16th and 17th by an equal rise, while on the 18th and 19th pressure again decreased by small amounts at most stations. These changes were of the usual oscillatory character, and had no practical effect on the weather conditions. It is also to be noticed that the pressure in Bengal was scarcely, if at all, affected by the formation of the small storm in the south of the Bay, and it is therefore clear that it must have been only a shallow depression and of rather feeble character. The mean pressure for the week has continued to be decidedly in excess of the normal, and as in the previous week the excess was greatest in Behar, where the average excess pressure was about 0·08". In East Bengal it equalled 0·07", while in the other districts the excess varied from 0·05" to 0·04".

**Temperature**—During the previous week had been considerably below the normal, but, as noted above, with the alteration in wind directions, and with the falling off in the north-east current, temperature rose steadily for several days during the present week. On the 18th and 19th, however, temperature at most stations commenced to fall again slightly, but the mean temperature for the past week has been very nearly equal to the mean of previous years. The greatest variation from normal temperature has been at Chittagong, which shows a defect of 1·1°, while at the opposite extreme, Bankipore shows an excess of 1·6°. Taking, however, the averages for the districts, in most cases they show a temperature slightly in excess of the normal, the greatest excess being in Chutia Nagpur where it equalled 1·2°. The increase of temperature which has taken place during the past week has been principally in the night temperatures. This will be shown by the following table, which gives the normal and actual mean maximum and minimum temperatures at eight stations, and it will be noticed that, while in six out of eight cases the day temperatures have been *below* the average for the time of year, the night temperatures have been in five out of eight instances *above* the normal :—

				MAXIMUM DAY TEMPERATURE.		Difference.	MINIMUM NIGHT TEMPERATURE.		Difference.
				Normal average for week.	Actual average for week.		Normal average for week.	Actual average for week.	
Cuttack	...	...	...	82·7	81·9	—0·8	57·6	58·2	+0·6
Calcutta	...	...	...	75·8	76·2	+0·4	54·9	55·7	+0·8
Burdwan	...	...	...	77·4	77·2	—0·2	54·7	56·6	+1·9
Jessore	...	...	...	78·0	77·6	—0·4	53·3	53·2	—0·1
Dacca	...	...	...	78·2	77·9	—0·3	56·1	55·3	—0·8
Patna	...	...	...	74·6	73·6	—0·7	48·7	52·6	+3·9
Purneah	...	...	...	76·6	77·5	+0·9	48·8	48·1	—0·7
Hazaribagh	...	...	...	71·8	71·3	—0·5	49·2	52·1	+2·9

**Rainfall**—Has been entirely absent over the whole Province except on the 14th instant, when at three stations in North Bengal slight showers were reported. The largest amount was at Panchbibi, which, however, received only 0·23 inch, while at Kalimpong and Dinagepore the amounts recorded were even smaller than this.



The following table gives the summary of the temperature and rainfall data of each of the seven meteorological divisions of the Province for the week ending Friday, the 19th December 1884 :—

METEOROLOGICAL DIVISIONS.	TEMPERATURE.							RAINFALL.								
	Highest observed during week.	Lowest observed during week.	Averages for week.			Average mean of week above or below normal mean of week.	Of week.			Rainy days.			Since 1st of month.		Since 15th May.	
			Of highest of each day.	Of lowest of each day.	Of mean for each day.		Average.	Normal average.	Variation.	Average number. in week.	Normal average number in week.	Variation.	Average.	Normal average.	Average.	Normal average.
Orissa ... ..	82°8	51°6	78°3	57°3	67°8	—0°2	Nil	Nil	Nil	0°0	0°0	0	Nil	0°38	51°79	54°46
South-West Bengal ...	79°3	51°2	77°1	55°2	66°2	+0°4	Nil	Nil	Nil	0°0	0°0	0	Nil	0°21	44°51	51°32
East Bengal ... ..	80°4*	47°1*	77°8*	53°9*	65°1*	—0°9*	Nil	0°01	—0°01	0°0	0°1	—0°1	Nil	0°40	65°43	75°88
North Bengal ... ..	78°6	48°3	76°2	52°3	64°3	—	0°01	0°02	—0°01	0°1	0°1	0	0°1	0°16	53°18	72°60
North Behar ... ..	78°5	42°3	75°5	49°5	62°5	+0°5	Nil	Nil	Nil	0°0	0°0	0	Nil	0°03	39°10	47°16
South Behar ... ..	78°3	44°1	73°4	51°4	62°4	+0°4	Nil	Nil	Nil	0°0	0°0	0	Nil	0°03	30°37	42°55
Chutia Nagpur ... ..	72°3†	48°9†	70°9†	51°2†	61°1†	+1°2†	Nil	Nil	Nil	0°0	0°0	0	Nil	0°10	36°49	47°41

\* Burrisal not included.  
† Chyebassa not included.

METEOROLOGICAL OFFICE, BENGAL;

ALEXANDER PEDLER,

The 22nd December 1884.

Offg. Meteorological Reporter to the Govt. of Bengal

**Results of the Meteorological Observations taken at the Alipore Observatory from  
14th to 20th December 1884.**

Month.	Date.	Maximum in sun.	Number of hours of bright sunshine.	Mean pressure barometer at 32° Fahr.	TEMPERATURE.				HYGROMETRY.				WIND.		Rain.	WEATHER.
					Mean.	Maximum.	Range.	Minimum.	Mean wet bulb.	Vapour tension.	Dew point.	Humidity.	Prevailing direction.	Miles recorded.		
1884.		°		Inches.	°	°	°	°	°	Inches.	°	%			Inches.	
Dec.	14th	129.4	9.4	30.052	64.4	77.1	22.6	54.5	59.2	0.438	55.2	74	NNW and NW ...	63	Nil.	Chiefly clear
"	15th	126.4	9.3	.076	65.0	76.1	19.3	56.8	60.1	.459	56.6	76	NE, NNW and N by E.	80	"	Chiefly clear,
"	16th	131.6	9.3	.108	65.2	76.8	18.9	57.9	59.6	.439	55.3	72	N by E and NNW ...	77	"	Chiefly clear,
"	17th	126.2	8.8	.120	64.7	75.6	19.3	56.3	59.1	.429	54.6	72	NNW and N by E	83	"	Chiefly clear,
"	18th	126.2	8.3	.099	63.6	74.9	20.3	54.7	58.6	.428	54.6	74	NNW and N by E	83	"	Partially cloudy,
"	19th	121.6	7.6	.088	63.3	74.1	19.4	54.7	57.8	.450	56.0	72	N by E and N ...	68	"	Partially cloudy,
"	20th	126.7	8.8	.118	64.5	75.8	20.7	55.1	59.2	.436	55.1	71	E by N and NNE ...	70	"	Partially cloudy

The mean pressure of the seven days ...

The average pressure of the corresponding period for 24 years, S. G.'s Office ...

The total number of hours of bright sunshine ...

The maximum possible number of hours of sunshine ...

The mean temperature of the seven days ...

The average temperature of the corresponding period for 24 years, S. G.'s Office ...

The extreme variation of temperature ...

The maximum temperature ...

The highest velocity of the wind in one hour ...

The highest pressure of wind on one square foot ...

The mean relative humidity ...

The average relative humidity of the corresponding period for 24 years, S. G.'s Office ...

The total fall of rain from 14th to 20th December 1884 ...

The average fall of the corresponding period for 24 years, S. G.'s Office ...

The total fall from 1st January to 20th December 1884 ...

The average fall of the corresponding period for 24 years, S. G.'s Office ...

The mean pressure, temperature, &c., are deduced from the traces of the Barograph and Thermograph, and from observations made at 6h, 10h, 16h, and 22h.

The maximum and minimum temperatures are obtained from self-registering thermometers. All the thermometers are verified, and the readings have been corrected to a standard constructed and verified at the Kew Observatory. They are exposed under a thatched shed open at the sides, and are suspended four feet above the ground.

The barometer readings are corrected approximately to those of the standard Newman's No. 86 formerly at the Surveyor-General's Office.

The hygrometric elements are obtained from Tables III, IV, and V of the official tables computed in the Meteorological Office, and based on Regnault's modifications of August's formula.

The directions and the movement of the wind are taken from the trace of a Beckley's anemograph.

The mouth of the rain-gauge is one foot above the ground.

Δ dew.

W. L. DALLAS,

METEOROLOGICAL OFFICE, INDIA;  
Calcutta, the 22nd December 1884.

For Meteorological Reporter to the Government of India.



Results of the Thermometrical Observations taken at the Meteorological Office,  
Chowringhee, from 14th to 20th December 1884.

MONTH.	Date.	TEMPERATURE.				Mean wet bulb.	HYGROMETRY.			Rain.
		Mean.	Maximum.	Range.	Minimum.		Vapour tension.	Dew point.	Humidity.	
		°	°	°	°	°	Inches.	°	%	Inches.
December	14th	64.7	78.4	12.3	56.1	60.6	.449	56.0	69	Nil
"	15th	65.8	77.9	22.0	55.9	61.3	.484	58.0	76	"
"	16th	66.2	77.2	2.6	56.6	61.0	.469	57.1	73	"
"	17th	66.4	77.1	19.8	57.3	60.7	.456	56.4	70	"
"	18th	65.4	75.9	21.0	54.9	59.9	.444	55.6	71	"
"	19th	64.2	76.1	21.4	54.7	59.6	.451	56.1	75	"
"	20th	65.9	77.4	21.6	55.8	60.7	.463	56.8	72	"

The mean temperature of the seven days ... 65.8

The extreme variation of temperature ... 23.7

The maximum temperature ... 78.4

The mean relative humidity ... 72%

The total fall of rain from 14th to 20th December 1884 ... Nil

The mean temperature and humidity are obtained by applying to the mean of the 10h, 16h and minimum readings a correction dependent on the range, and derived from the hourly observations at the Surveyor-General's Office, Chowringhee, in past years.

METEOROLOGICAL OFFICE, INDIA;  
Calcutta, the 22nd December 1884.

W. L. DALLAS.  
for Meteorological Reporter to the Govt. of India.

## MEMORANDA.

THE annexed table exhibits the mortuary statistics of the districts in Bengal for the month of October 1884. The leading features revealed by it are—

1. That 115,763 deaths were registered among a population of 66,163,884, presenting a death-rate of 20·88 per 1,000 per annum, against 18·12 per 1,000 during the preceding month, and 19·56 per 1,000 during the corresponding month of 1883.

2. That the highest death-rates were reported to have occurred in the undermentioned districts.—

Districts.			Ratio per mille.	Districts.			Ratio per mille.
Pubna	...	...	40·32	Gya	...	...	26·76
Nuddea	...	...	36·96	Cuttack	...	...	25·92
Rajshahye	...	...	36·00	Khulna	...	...	25·68
Bogra	...	...	35·52	Burdwan	...	...	24·84
Moorshedabad	...	...	27·96	Dacca	...	...	24·36
Jessore	...	...	27·12	Backergunge	...	...	24·12

3. That the mortality from the specific heads of disease stands as noted below :—

			Ratio per mille during—	
			October 1884.	October 1883.
Cholera	...	...	96	36
Small-pox	...	...	06	02
Fever	...	...	15·96	15·48
Bowel-complaints	...	...	84	72
Injury	...	...	36	36
Other causes	...	...	2·52	2·40

indicating, in comparison with the outcome of the corresponding month of the previous year, a fractional increase of mortality from every death-cause excepting injury, the casualties from which exhibit no variation.

4. That the incidence of small-pox, bowel-complaints and injury was, on the whole, normal in every district, but that the rest of the diseases proved conspicuously fatal to life in the following districts :—

Cholera.		Fever.		Other Causes.	
	Ratio per mille.		Ratio per mille.		Ratio per mille.
Bogra	7·56	Rajshahye	33·48	Poori	10·68
Cuttack	6·96	Nuddea	33·12	Sarun	8·76
Pubna	5·76	Pubna	32·64		
Faridpore	4·32	Bogra	25·56		
Poori	4·08	Moorshedabad	25·44		
Dacca	2·28	Jessore	25·32		
		Gya	22·56		
		Burdwan	21·24		

5. That distributed under the heads of *Sex*, *Class* and *Age*, the mortality of the month under review stands as follows :—

According to Sex.		According to Class.		According to Age.	
	Ratio per mille.		Ratio per mille.		Ratio per mille.
Males	22·56	Christians	12·72	Under 1 year	117·36
Females	19·44	Hindus	20·52	1 and under 5 years	25·08
Ratio of male deaths to every 100 female deaths	114	Mahomedans	22·20	5 " 10 "	12·96
		Budhists	12·24	10 " 15 "	10·56
		Other classes	16·92	15 " 20 "	14·28
				20 " 30 "	13·68
				30 " 40 "	15·12
				40 " 50 "	20·28
				50 " 60 "	29·52
				60 years and upwards	49·32

R. LIDDERDALE, M.D., Deputy Surgeon-General,

The 22nd December 1884.

Sanitary Commissioner for Bengal



*Statement showing the Results of the Registration of Deaths in the Districts in Bengal for the month of October 1884.*

[illegible]

DIVISIONS.	DISTRICTS	DEATHS AMONG -										RATIO PER 1,000 OF POPULATION PER ANNUM.										MORTALITY ACCORDING TO -										DEATHS.										RATIO PER 1,000 OF POPULATION PER ANNUM.										Age.										RATIO PER 1,000 OF POPULATION PER ANNUM.										DEATHS.										RATIO PER 1,000 OF POPULATION PER ANNUM.										DEATHS.										RATIO PER 1,000 OF POPULATION PER ANNUM.										DEATHS.										RATIO PER 1,000 OF POPULATION PER ANNUM.										DEATHS.										RATIO PER 1,000 OF POPULATION PER ANNUM.										DEATHS.										RATIO PER 1,000 OF POPULATION PER ANNUM.										DEATHS.										RATIO PER 1,000 OF POPULATION PER ANNUM.										DEATHS.										RATIO PER 1,000 OF POPULATION PER ANNUM.										DEATHS.										RATIO PER 1,000 OF POPULATION PER ANNUM.										DEATHS.										RATIO PER 1,000 OF POPULATION PER ANNUM.										DEATHS.										RATIO PER 1,000 OF POPULATION PER ANNUM.										DEATHS.										RATIO PER 1,000 OF POPULATION PER ANNUM.										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R. LIDDERDALE, M.D., *Deputy Surgeon-General,*

*Sanitary Commissioner for Bengal.*

OFFICE OF SANITARY COMMISSIONER FOR BENGAL,

*The 22<sup>nd</sup> December 1884.*



## MEMORANDA.

The birth and death returns of the first class Municipalities in Bengal, for the week ending 6th December 1884, present the following results:—

1. That births and deaths were recorded in these Municipalities at the rates, respectively, of 26.5 and 37.6 per 1,000 of population, as opposed to 31.6 and 42.3 per 1,000, respectively, during the preceding week ending 29th November, indicating a considerable falling off in the record of both events.

2. That these events were registered at the highest rates in the undermentioned Municipalities:—

<i>Births.</i>				<i>Deaths.</i>			
			Ratio per mille.				Ratio per mille.
Purneah	...	...	96.9	Purneah	...	...	83.1
Monghyr	...	...	40.7	Poori	...	...	66.4
Howrah	...	...	39.4	Serampore	...	...	62.8
Gya	...	...	32.8	Hughli	...	...	59.0
Durbhanga	...	...	32.3	Bhagulpore	...	...	55.2
Serampore	...	...	31.4	Chittagong	...	...	51.6
Midnapore	...	...	31.0	Suburbs of Calcutta	...	...	50.7
Burdwan	...	...	30.5	Beauleah	...	...	49.9
Bhagulpore	...	...	29.9	Jessore	...	...	49.0
				Midnapore	...	...	43.4
				Dacca	...	...	41.5
				Kishnaghur	...	...	39.8
				Howrah	...	...	38.5
				Utterpara	...	...	37.8
				Burdwan	...	...	36.6
				Santipore	...	...	35.0
				Pattna	...	...	29.8

3. That the mortality from the principal diseases exhibited below, contrasted with the death rates from the same causes in the preceding week, stands as follows:—

				Ratio per mille during the weeks ending—	
				6th December 1884.	29th November 1884.
Cholera	...	...	...	3.9	5.0
Small-pox	...	...	...	3	1
Fever	...	...	...	18.1	19.5
Bowel-complaints	...	...	...	5.5	6.6
Injury	...	...	...	4	6
Other causes	...	...	...	9.4	10.5

The above figures indicate that there was a diminution of mortality from all diseases except small-pox, the death-rate from which exhibited a fractional increase.

4. That excluding injury, the mortality from which was high nowhere, the rest of the diseases proved most fatal to life in the following Municipalities:—

<i>Cholera.</i>		<i>Small-pox.</i>		<i>Fever.</i>		<i>Bowel-complaints.</i>		<i>Other Causes.</i>	
	Ratio per mille.		Ratio per mille.		Ratio per mille.		Ratio per mille.		Ratio per mille.
Chittagong	28.2	Beauleah	13.1	Purneah	69.2	Chittagong	11.7	Poori	23.5
Serampore	15.7			Jessore	42.8	Midnapore	10.8	Kishnaghur	20.8
Suburbs of Calcutta	8.7			Hughli	41.6	Bhagulpore	10.0	Midnapore	15.5
Howrah	6.9			Poori	32.1	Suburbs of Calcutta	9.1	Suburbs of Calcutta	14.3
Bhagulpore	6.3			Santipore	31.5			Beauleah	13.1
Dacca	4.5			Utterpara	28.3			Serampore	11.8
				Serampore	27.5			Dacca	11.6
				Bhagulpore	27.1			Gya	11.6
				Burdwan	24.4			Bhagulpore	10.9
				Dacca	22.7			Hughli	10.7

5. That with regard to mortality referable to *Sex*, *Class* and *Age*, the rates stand as follows:—

<i>According to Sex.</i>			<i>According to Class.</i>			<i>According to Age.</i>		
	Ratio per mille.			Ratio per mille.			Ratio per mille.	
Males	40.5		Christians	30.4		Under 1 year	262.5	
Females	34.3		Hindus	38.4		1 and under 5 years	54.1	
Ratio of male deaths to every 100 female deaths	134		Mahomedans	35.6		5 " 10 "	23.4	
			Budhists	48.4		10 " 15 "	15.8	
			Other classes	72.8		15 " 20 "	25.6	
						20 " 30 "	27.4	
						30 " 40 "	23.7	
						40 " 50 "	31.5	
						50 " 60 "	47.0	
						60 years and upwards	74.3	

R. LIDDERDALE, M.D., Deputy Surgeon-General,

Sanitary Commissioner for Bengal.

The 22nd December 1884.

Statement showing the Results of the Registration of Births and Deaths in the First Class Municipalities in Bengal during the week ending 6th December 1884.

DISTRICTS.	NAMES OF MUNICIPALITIES.	POPULATION.			BIRTHS.			MORTALITY ACCORDING TO—										SEX.									
		Males.	Females.	Total.	NUMBER OF—	RATIO PER 1,000 OF POPULATION PER ANNUM.			DISEASE.										RATIO PER 1,000 OF POPULATION PER ANNUM.								
						Males.	Females.	Total.	DEATHS FROM—										Males.	Females.							
									Cholera.	Small-pox.	Fever.	Bowel-complaints.	Injury.	Other diseases.	All causes.	RATIO PER 1,000 OF POPULATION PER ANNUM.											
																Cholera.	Small-pox.	Fever.			Bowel-complaints.	Injury.	Other diseases.	All causes.	RATIO PER 1,000 OF POPULATION PER ANNUM.		
RATIO OF MALE BIRTHS TO EVERY 100 FEMALE BIRTHS.										RATIO OF DEATHS PER 1,000 OF THE PREVIOUS WEEK.										RATIO OF MALE DEATHS TO EVERY 100 FEMALE DEATHS.							
1	2	3	4	5	6	7	8	9	10	11	12																
Burdwan	Burdwan	13,468	16,017	34,080	9	11	20	137	168	305	81	4	24	...	24	61	...	61	366	564	9	15	259	487	60		
Midnapur	Midnapur	10,927	16,633	33,560	11	9	20	170	139	310	122	10	28	...	28	108	...	108	434	248	15	13	461	406	115		
Hughli	Hughli and Chinsurah	19,179	19,349	38,718	9	11	20	121	148	269	81	8	44	...	44	26	...	26	500	439	23	21	624	558	109		
Serampore	Serampore	13,559	12,937	26,496	6	8	14	157	157	314	100	6	32	...	32	157	...	157	628	706	19	13	729	523	146		
Howrah	Howrah	3,046	2,464	5,510	1	...	1	94	...	94	No female births.	1	4	...	4	...	...	...	378	472	2	2	541	422	100		
24-Pargunnahs	Suburbs of Calcutta	60,989	44,630	105,619	43	37	80	212	182	394	117	14	78	...	78	69	...	69	385	428	43	35	367	408	122		
Nuddea	Kishinagar	14,203	14,214	27,417	8	7	15	151	132	284	114	...	11	21	...	21	...	...	308	417	14	7	550	256	200		
Jessore	Ranaghat	4,628	4,653	9,281	2	...	2	120	...	120	No female births.	...	1	3	...	3	...	...	150	479	2	1	258	112	200		
Rajshahy	Santipore	13,708	16,579	29,687	3	6	9	52	105	157	50	1	20	...	20	17	...	17	350	473	9	11	342	378	81		
Darjiling	Jessore	4,889	3,065	8,403	1	...	1	61	...	61	No female births.	...	8	61	...	61	...	...	400	551	6	2	645	384	369		
Dacca	Rampore Beaulah	10,765	9,025	19,791	1	3	4	26	79	105	33	...	5	10	...	10	...	...	409	420	10	8	484	518	111		
Chittagong	Darjiling	5,659	2,947	7,976	...	...	...	...	...	...	...	...	1	...	...	...	...	...	65	...	1	...	103	...	No female deaths.		
Tipperah	Dacca	42,782	37,370	80,151	16	15	31	104	97	202	106	35	64	...	64	45	...	45	415	531	40	24	486	334	166		
Patna	Narayana	7,005	4,956	12,561	3	2	5	124	83	207	150	3	...	...	...	...	...	...	166	332	3	1	205	103	309		
Gya	Chittagong	13,340	8,700	22,130	4	4	8	94	94	188	100	2	3	...	3	22	...	22	516	727	12	10	467	532	136		
Shahabad	Commillah	8,153	5,353	13,506	3	4	7	116	154	270	75	5	7	...	7	...	...	77	272	231	4	3	255	291	133		
Moulvibazar	Patna City	78,762	81,475	160,237	40	28	68	130	91	221	142	...	25	92	...	92	...	...	298	331	47	45	210	287	104		
Durgha	Gya	38,994	37,831	76,825	24	24	48	164	164	328	100	17	35	...	35	...	...	...	239	362	19	16	258	220	113		
Sarun	Arrah	29,964	22,505	52,469	8	7	15	98	84	180	114	4	10	...	10	...	...	...	120	316	10	13	925	344	76		
Bhagalpur	Moulvibazar	53,684	19,658	42,742	10	13	23	121	158	280	76	11	23	...	23	...	...	...	280	316	10	13	925	344	76		
Mouzyr	Durgha	35,774	32,322	68,096	24	17	41	189	134	323	141	10	31	...	31	...	...	...	163	197	11	10	169	161	110		
Purneah	Chupra	26,044	27,205	53,249	...	1	1	...	...	...	No male births.	4	5	...	5	...	...	...	49	244	2	3	40	57	66		
Poori	Bhagalpur	27,040	27,813	57,453	19	14	33	172	127	299	133	30	12	...	12	...	...	...	552	542	40	21	702	393	190		
	Mouzyr	28,154	29,306	57,520	20	25	45	181	226	407	80	20	24	...	24	...	...	...	262	416	19	10	351	177	190		
	Purneah	8,453	6,553	15,416	15	13	28	119	450	569	115	26	24	...	24	...	...	...	831	311	15	9	922	714	166		
	Poori	13,627	11,265	24,292	3	6	9	64	128	193	60	15	11	...	11	...	...	...	654	428	20	11	798	508	181		
	Total	702,670	619,419	1,322,089	348	327	675	137	128	265	106	403	140	11	238	955	39	3	376	453	547	408	405	343	134		

A special census of the Europeans in the Darjiling Municipality was recently taken, as the census of this section of the community taken in February 1881 was not reliable, owing to the Europeans being at a minimum in that month. The number of the natives remaining as before, as it was not necessary to re-census them. The ratios have consequently been calculated on the revised population under all heads in the above table, except "Age," the ratios under which have been omitted, inasmuch as the census of the Europeans above allotted to cannot be employed as a basis of calculation owing to the results of the census under this head not having been recorded under the authorized form of age classification.



## MORTALITY ACCORDING TO—

## Age.

## DISTRICTS.

## NAMES OF MUNICIPALITIES.

## Class.

## DEATHS AMONG—

## DEATHS.

## RATIO PER 1,000 OF POPULATION PER ANNUM.

## RATIO PER 1,000 OF POPULATION PER ANNUM.

Districts.	Christians.	Hindus.	Mahomedans.	Buddhists.	Other classes.	Under 1 year.	1 and under 5 years.	5 and under 10 years.	10 and under 15 years.	15 and under 20 years.	20 and under 30 years.	30 and under 40 years.	40 and under 50 years.	50 and under 60 years.	60 years and upwards.	Under 1 year.	1 and under 5 years.	5 and under 10 years.	10 and under 16 years.	15 and under 20 years.	20 and under 30 years.	30 and under 40 years.	40 and under 50 years.	50 and under 60 years.	60 years and upwards.	Totals.		
																										Male.	Female.	
Burdwan	...	45.2	10.1	...	...	7	2	1	...	...	...	...	...	...	...	...	531.5	46.1	22.3	...	...	131	45.2	23.5	63.5	33.1	...	...
Midnapore	...	45.1	25.8	...	...	6	4	...	...	...	...	...	...	...	...	...	419.9	88.4	...	...	82.9	21.2	18.7	14.0	53.4	127.3	...	...
Hughli	...	60.8	55.3	...	...	7	9	4	...	...	...	...	...	...	...	...	385.0	175.5	59.8	17.2	22.5	27.1	14.8	40.4	79.6	103.7	...	...
Serampore	...	63.9	55.4	...	...	7	6	1	...	...	...	...	...	...	...	...	512.7	172.8	20.7	25.4	25.8	43.3	41.8	61.6	27.2	74.8	...	...
Howrah	...	39.0	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	118.2	45.2	40.0	...	141.3	...	...	...
24 Pargunnahs	...	35.4	52.4	...	344.4	14	8	5	...	...	...	...	...	...	...	...	300.2	63.6	33.4	20.1	24.0	30.0	21.2	34.2	15.9	164.4	...	...
Naldia	...	52.0	50.1	...	...	43	23	11	...	...	...	...	...	...	...	...	430.2	70.8	23.9	29.1	46.2	48.3	33.3	30.6	49.0	76.7	...	...
Jessore	...	41.9	37.7	...	...	7	1	3	...	...	...	...	...	...	...	...	7.3.9	21.1	45.4	37.1	...	32.4	15.1	...	24.7	90.3	...	...
Rajshaye	...	21.3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	65.4	...	...	...	...	41.7	...	...	...	...	...
Darjiling	...	45.3	11.6	...	...	2	4	3	...	...	...	...	...	...	...	...	123.1	71.9	41.3	35.9	46.7	31.8	...	29.6	45.3	...	...	
Dacca	...	23.1	81.6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	78.2	71.0	51.6	68.0	49.5	22.4	...	...	
Chittagong	...	36.7	63.6	...	...	2	3	1	...	...	...	...	...	...	...	...	256.2	110.0	25.0	...	...	87.5	...	106.0	85.8	161.7	...	...
Tipperah	...	42.6	39.7	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Patna	...	24.7	8.4	...	...	...	...	...	...	...	...	...	...	...	...	...	164.4	40.4	15.7	19.6	7.1	30.5	26.8	63.1	63.8	111.9	...	...
Gya	...	105.5	42.6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	45.6	...	...	...	...	...	...	...	70.8	...	...
Shahabad	...	24.7	8.4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	105.7	41.6	20.2	...	...	...	...	...	130.3	...	...
Monirpore	...	54.1	216.7	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Durbhanga	...	9.0	54.1	...	...	...	...	...	...	...	...	...	...	...	...	...	350.2	...	...	...	82.7	15.8	62.2	...	...	...	...	...
Sarun	...	26.2	28.1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Biagulpore	...	31.5	25.4	...	...	18	13	5	...	...	...	...	...	...	...	...	217.2	46.3	15.4	3.6	4.6	12.6	15.7	19.3	62.5	60.2	...	...
Monghyr	...	26.8	12.9	...	...	4	8	5	...	...	...	...	...	...	...	...	116.2	24.6	37.2	7.7	9.9	24.7	32.7	21.3	7.9	10.1	...	...
Purneah	...	15.1	4.2	...	...	2	1	...	...	...	...	...	...	...	...	...	80.7	11.7	...	...	...	5.6	8.1	22.2	...	...	...	...
Poori	...	31.2	25.3	...	...	3	7	2	...	...	...	...	...	...	...	...	163.4	90.1	13.3	...	34.3	18.2	...	...	48.0	64.1	...	...
TOTAL	...	17.2	14.3	...	...	6	3	...	...	...	...	...	...	...	...	...	200.4	20.5	13.3	9.4	12.9	7.8	...	...	33.6	48.9	...	...
	...	5.1	4.3	...	...	...	...	...	...	...	...	...	...	...	...	...	9.8	8.4	...	...	5.5	6.0	8.3	...	...	...	...	...
	...	65.4	35.2	...	...	5	8	7	...	...	...	...	...	...	...	...	217.8	76.8	62.0	41.3	24.9	14.3	28.0	57.2	24.4	173.2	...	...
	...	25.6	29.0	...	...	4	3	1	...	...	...	...	...	...	...	...	140.1	25.1	7.4	18.1	41.3	5.0	17.5	24.3	65.4	58.0	...	...
	...	50.7	73.5	...	...	3	3	2	...	...	...	...	...	...	...	...	531.2	129.1	65.8	43.5	52.3	79.1	91.1	25.0	166.5	...	...	
	...	67.1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	831.4	...	...	...	114.4	...	...	127.6	188.5	...	...	
	...	676	368	...	...	133	114	59	...	...	...	...	...	...	...	...	252.5	54.1	23.4	15.8	95.6	27.4	23.7	31.5	47.0	74.3	...	...

OFFICE OF SANITARY COMMISSIONER FOR BENGAL,

The 22nd December 1884.

R. LIDDERDALE, M.D., Deputy Surgeon-General,  
Sanitary Commissioner for Bengal.

## PUBLIC WORKS DEPARTMENT—BENGAL.

## IRRIGATION BRANCH.

Statement showing heights over mean sea-level and low water on the Rivers Ganges, Bhagiruthi, Jellinghee, and Brahmapootra for the month of November 1884.

RIVER GANGES.															RIVER BHAGIRUTHI.	RIVER JELLINGHEE.	RIVER BRAHMAPOOTRA.		
Mirzapore.		Benares.		Ruxar.		Dinapore.		Moughyr.		Sahibganj.		Rampore Beaulah.		Goalundo.		Berhampore.		Krishnagur.	Gowhaty.
Height over zero of gauge.	Height over mean sea-level.	Height over zero of gauge.	Height over mean sea-level.	Height over zero of gauge.	Height over mean sea-level.	Height over zero of gauge.	Height over mean sea-level.	Height over zero of gauge.	Height over mean sea-level.	Height over zero of gauge.	Height over mean sea-level.	Height over zero of gauge.	Height over mean sea-level.	Height over zero of gauge.	Height over mean sea-level.	Height over zero of gauge.	Height over mean sea-level.	Height over zero of gauge.	Height over mean sea-level.
From Allahabad ... 80.	From Allahabad ... 134.	From Mirzapore ... 48.	From Benares ... 90.	From Benares ... 177.	From Benares ... 87.	From Benares ... 257.	From Benares ... 110.	From Benares ... 381.	From Moughyr ... 94.	From Benares ... 471.	From Sahibganj ... 90.	From Benares ... 691.	From Benares ... 120.						
15.35	10.75	207.55	180.30	16.70	150.93	9.33	111.18	13.33	81.33	19.50	54.50	10.00	18.94	14.57	48.11	14.75	33.54	4.10	152.95
15.08	10.42	207.22	179.97	16.50	150.53	8.75	110.40	13.00	81.00	19.25	53.92	9.83	18.94	14.30	47.74	14.50	33.29	3.90	152.66
14.81	10.10	206.90	179.47	16.30	150.13	8.42	109.27	12.68	80.68	18.93	53.62	9.67	18.77	14.17	47.36	14.27	32.95	3.70	152.36
14.54	9.96	206.57	179.13	16.00	149.73	8.17	108.00	12.33	80.33	18.63	53.32	9.50	18.61	13.97	47.11	13.97	32.66	2.85	151.81
14.27	9.80	206.25	178.66	15.83	149.33	7.92	106.77	11.94	79.92	18.33	53.02	9.33	18.44	13.77	46.83	13.77	32.33	2.60	151.56
14.00	9.63	205.93	178.33	15.50	148.93	7.60	105.55	11.58	79.58	18.03	52.72	9.16	18.26	13.57	46.55	13.57	32.00	2.35	151.31
13.73	9.47	205.60	178.00	15.30	148.53	7.35	104.30	11.25	79.25	17.73	52.42	8.94	18.08	13.37	46.27	13.37	31.67	2.10	151.06
13.46	9.31	205.28	177.67	15.00	148.13	7.00	103.07	10.92	78.92	17.43	52.12	8.72	17.90	13.17	45.99	13.17	31.33	1.85	150.81
13.19	9.15	204.95	177.33	14.83	147.73	6.75	101.83	10.58	78.58	17.13	51.82	8.50	17.72	12.97	45.71	12.97	31.00	1.60	150.56
12.92	8.99	204.63	177.00	14.50	147.33	6.50	100.58	10.25	78.25	16.83	51.52	8.28	17.54	12.77	45.43	12.77	30.67	1.35	150.31
12.65	8.83	204.30	176.67	14.33	146.93	6.25	99.33	9.92	77.92	16.53	51.22	8.06	17.36	12.57	45.15	12.57	30.33	1.10	150.06
12.38	8.67	203.98	176.33	14.00	146.53	6.00	98.08	9.58	77.58	16.23	50.92	7.84	17.18	12.37	44.87	12.37	30.00	0.85	149.81
12.11	8.51	203.65	176.00	13.83	146.13	5.75	96.83	9.25	77.25	15.93	50.62	7.62	17.00	12.17	44.59	12.17	29.67	0.60	149.56
11.84	8.35	203.33	175.67	13.50	145.73	5.50	95.58	8.92	76.92	15.63	50.32	7.40	16.82	11.97	44.31	11.97	29.33	0.35	149.31
11.57	8.19	203.00	175.33	13.33	145.33	5.25	94.33	8.58	76.58	15.33	49.92	7.18	16.64	11.77	44.03	11.77	29.00	0.10	149.06
11.30	8.03	202.68	175.00	13.00	144.93	5.00	93.08	8.25	76.25	15.03	49.62	6.96	16.46	11.57	43.75	11.57	28.67	0.00	148.81
11.03	7.87	202.35	174.67	12.83	144.53	4.75	91.83	7.92	75.92	14.73	49.32	6.74	16.28	11.37	43.47	11.37	28.33	0.00	148.56
10.76	7.71	202.03	174.33	12.50	144.13	4.50	90.58	7.58	75.58	14.43	49.02	6.52	16.10	11.17	43.19	11.17	28.00	0.00	148.31
10.49	7.55	201.70	174.00	12.33	143.73	4.25	89.33	7.25	75.25	14.13	48.72	6.30	15.92	10.97	42.91	10.97	27.67	0.00	148.06
10.22	7.39	201.38	173.67	12.00	143.33	4.00	88.08	6.92	74.92	13.83	48.42	6.08	15.74	10.77	42.63	10.77	27.33	0.00	147.81
9.95	7.23	201.05	173.33	11.83	142.93	3.75	86.83	6.58	74.58	13.53	48.12	5.86	15.56	10.57	42.35	10.57	27.00	0.00	147.56
9.68	7.07	200.73	173.00	11.50	142.53	3.50	85.58	6.25	74.25	13.23	47.82	5.64	15.38	10.37	42.07	10.37	26.67	0.00	147.31
9.41	6.91	200.40	172.67	11.33	142.13	3.25	84.33	5.92	73.92	12.93	47.52	5.42	15.20	10.17	41.79	10.17	26.33	0.00	147.06
9.14	6.75	200.08	172.33	11.00	141.73	3.00	83.08	5.58	73.58	12.63	47.22	5.20	15.02	9.97	41.51	9.97	26.00	0.00	146.81
8.87	6.59	199.75	172.00	10.83	141.33	2.75	81.83	5.25	73.25	12.33	46.92	4.98	14.84	9.77	41.23	9.77	25.67	0.00	146.56
8.60	6.43	199.43	171.67	10.50	140.93	2.50	80.58	4.92	72.92	12.03	46.62	4.76	14.66	9.57	40.95	9.57	25.33	0.00	146.31
8.33	6.27	199.10	171.33	10.33	140.53	2.25	79.33	4.58	72.58	11.73	46.32	4.54	14.48	9.37	40.67	9.37	25.00	0.00	146.06
8.06	6.11	198.78	171.00	10.00	140.13	2.00	78.08	4.25	72.25	11.43	46.02	4.32	14.30	9.17	40.39	9.17	24.67	0.00	145.81
7.79	5.95	198.45	170.67	9.83	139.73	1.75	76.83	3.92	71.92	11.13	45.72	4.10	14.12	8.97	40.11	8.97	24.33	0.00	145.56
7.52	5.79	198.13	170.33	9.50	139.33	1.50	75.58	3.58	71.58	10.83	45.42	3.88	13.94	8.77	39.83	8.77	24.00	0.00	145.31
7.25	5.63	197.80	170.00	9.33	138.93	1.25	74.33	3.25	71.25	10.53	45.12	3.66	13.76	8.57	39.55	8.57	23.67	0.00	145.06
6.98	5.47	197.48	169.67	9.00	138.53	1.00	73.08	2.92	70.92	10.23	44.82	3.44	13.58	8.37	39.27	8.37	23.33	0.00	144.81
6.71	5.31	197.15	169.33	8.83	138.13	0.75	71.83	2.58	70.58	9.93	44.52	3.22	13.40	8.17	38.99	8.17	23.00	0.00	144.56
6.44	5.15	196.83	169.00	8.50	137.73	0.50	70.58	2.25	70.25	9.63	44.22	3.00	13.22	7.97	38.71	7.97	22.67	0.00	144.31
6.17	4.99	196.50	168.67	8.33	137.33	0.25	69.33	1.92	69.92	9.33	43.92	2.78	13.04	7.77	38.43	7.77	22.33	0.00	144.06
5.90	4.83	196.18	168.33	8.00	136.93	0.00	68.08	1.58	69.58	9.03	43.62	2.56	12.86	7.57	38.15	7.57	22.00	0.00	143.81
5.63	4.67	195.85	168.00	7.83	136.53	0.00	66.83	1.25	69.25	8.73	43.32	2.34	12.68	7.37	37.87	7.37	21.67	0.00	143.56
5.36	4.51	195.53	167.67	7.50	136.13	0.00	65.58	0.92	68.92	8.43	43.02	2.12	12.50	7.17	37.59	7.17	21.33	0.00	143.31
5.09	4.35	195.20	167.33	7.33	135.73	0.00	64.33	0.58	68.58	8.13	42.72	1.90	12.32	6.97	37.31	6.97	21.00	0.00	143.06
4.82	4.19	194.88	167.00	7.00	135.33	0.00	63.08	0.25	68.25	7.83	42.42	1.68	12.14	6.77	37.03	6.77	20.67	0.00	142.81
4.55	4.03	194.55	166.67	6.83	134.93	0.00	61.83	0.00	67.92	7.53	42.12	1.46	11.96	6.57	36.75	6.57	20.33	0.00	142.56
4.28	3.87	194.23	166.33	6.50	134.53	0.00	60.58	0.00	67.58	7.23	41.82	1.24	11.78	6.37	36.47	6.37	20.00	0.00	142.31
4.01	3.71	193.90	166.00	6.33	134.13	0.00	59.33	0.00	67.25	6.93	41.52	1.02	11.60	6.17	36.19	6.17	19.67	0.00	142.06
3.74	3.55	193.58	165.67	6.00	133.73	0.00	58.08	0.00	66.92	6.63	41.22	0.80	11.42	5.97	35.91	5.97	19.33	0.00	141.81
3.47	3.39	193.25	165.33	5.83	133.33	0.00	56.83	0.00	66.58	6.33	40.92	0.58	11.24	5.77	35.63	5.77	19.00	0.00	141.56
3.20	3.23	192.93	165.00	5.50	132.93	0.00	55.58	0.00	66.25	6.03	40.62	0.36	11.06	5.57	35.35	5.57	18.67	0.00	141.31
2.93	3.07	192.60	164.67	5.33	132.53	0.00	54.33	0.00	65.92	5.73	40.32	0.14	10.88	5.37	35.07	5.37	18.33	0.00	141.06
2.66	2.91	192.28	164.33	5.00	132.13	0.00	53.08	0.00	65.58	5.43	40.02	0.00	10.70	5.17	34.79	5.17	18.00	0.00	140.81
2.39	2.75	191.95	164.00	4.83	131.73	0.00	51.83	0.00	65.25	5.13	39.72	0.00	10.52	4.97	34.51	4.97	17.67	0.00	140.56
2.12	2.59	191.63	163.67	4.50	131.33	0.00	50.58	0.00	64.92	4.83	39.42	0.00	10.34	4.77	34.23	4.77	17.33	0.00	140.31
1.85	2.43	191.30	163.33	4.33	130.93	0.00	49.33	0.00	64.58	4.53	39.12	0.00	10.16	4.57	33.95	4.57	17.00	0.00	140.06
1.58	2.27	190.98	163.00	4.00	130.53	0.00	48.08	0.00	64.25	4.23	38.82	0.00	9.98	4.37	33.67	4.37	16.67	0.00	139.81
1.31	2.11	190.65	162.67	3.83	130.13	0.00	46.83	0.00	63.92	3.93	38.52	0.00	9.80	4.17	33.39	4.17	16.33	0.00	139.56
1.04	1.95	190.33	162.33	3.50	129.73	0.00	45.58	0.00	63.58	3.63	38.22	0.00	9.62	3.97	33.11	3.97	16.00	0.00	139.31
0.77	1.79	190.00	162.00	3.33	129.33	0.00	44.33	0.00	63.25	3.33	37.92	0.00	9.44	3.77	32.83	3.77	15.67	0.00	139.06
0.50	1.63	189.68	161.67	3.00	128.93	0.00	43.08	0.00	62.92	3.03	37.62	0.00	9.26	3.57	32.55	3.57	15.33	0.00	138.81
0.23	1.47	189.35	161.33	2.83	128.53	0.00	41.83	0.00	62.58	2.73	37.32	0.00	9.08	3.37	32.27	3.37	15.00	0.00	138.56
0.00	1.31	189.03	161.00	2.50	128.13	0.00	40.58	0.00	62.25	2.43	37.02	0.00	8.90	3.17	31.99	3.17	14.67	0.00	138.31

C. W. ODLING,

Under-Secy. to the Government of Bengal.

Intd 23rd December 1884.



## PUBLIC WORKS DEPARTMENT, IRRIGATION BRANCH, BENGAL

Statements showing the total amount of Traffic and Tolls on the Canals classed as Productive Public Works for the month of October 1884.

## ORISSA CIRCLE.

## Taldunda Canal.

LENGTH OF CANAL OPEN—27½ MILLS.

Number of boats.	Nature of Cargo.	APPROXIMATE		TONNAGE OF BOATS.		Ton-mileage.	Tollage.	Rate of toll per ton-mile.
		Weight of cargo.	Value of cargo.	Maunds.	Tons.			

## LOCAL TRAFFIC.

## (1)—PRIVATE.

ARTICLES OF FOOD.		Mds.	Rs.				Rs. A. P.	A. P.
8	Paddy ... ..	1,463	1,150	2,292	82	1,476	11 0 0	.....
1	Rice ... ..	26	50	34	1	23	0 4 0	.....
1	Jaggery ... ..	91	455	144	5	125	1 4 0	.....
BUILDING MATERIALS.								
4	Sand cutstone ... ..	1,780	220	2,841	101	2,525	28 0 3	.....
...	Unwrought timber and goyle (1 in number)	.....	.....	.....	.....	.....	0 0 2	.....
...	Bamboos (500 in number) ... ..	.....	20	.....	.....	.....	0 5 0	.....
FUEL.								
1	Charcoal ... ..	122	25	178	6	90	0 14 0	.....
MISCELLANEOUS.								
9	Passenger boat ... ..	.....	.....	8,090	289	867	40 0 0	.....
21	Empty do. ... ..	.....	.....	5,915	211	1,899	15 2 9	.....
45	Total ... ..	3,422	1,920	19,494	695	7,005	96 13 11	0 2 6
90	Total of same month last year ... ..	3,053	6,568	44,064	1,573	11,674	205 3 10	0 3 3

## (2)—STORES AND MATERIALS FOR IRRIGATION WORKS.

		Mds.	Rs.				Rs. A. P.	
23	Sand cutstone ... ..	9,682	1,505	16,593	593	11,267	109 12 0	.....
21	Empty boats ... ..	.....	.....	6,312	225	3,825	18 2 0	.....
44	Total ... ..	9,682	1,505	22,905	818	15,092	127 14 0	0 1 6
8	Total of same month last year ... ..	2,255	94	5,985	213	1,019	15 9 1	0 2 9

## ABSTRACT.

		Mds.	Rs.				Rs. A. P.	
45	Private, including miscellaneous ... ..	3,422	1,920	19,494	695	7,005	96 13 11	.....
44	Government stores, including ditto ... ..	9,682	1,505	22,905	818	15,092	127 14 0	.....
89	Grand Total ... ..	13,104	3,425	42,399	1,513	22,097	224 11 11	.....
98	Grand Total of same month last year ... ..	5,308	6,662	50,049	1,786	12,693	220 12 11	.....

## MEMO.

## Rs. A. P.

Unrecovered balance on the 1st of the month ... ..	40 9 10
Amount of tollage for the month ... ..	224 11 11
Total ... ..	265 5 9
Amount credited in the accounts for the month ... ..	169 7 10
Balance at the end of the month ... ..	96 13 11

*Kendrapara Canal and its Branch to Gundakia on the Gobri River.*

LENGTH OF CANAL OPEN—69 MILES.

## LOCAL TRAFFIC.

(1)—PRIVATE.

Number of Boats.	Nature of Cargo.	APPROXIMATE.		TONNAGE OF BOATS.		Ton-mileage.	Tollage.	Rate of toll per ton-mile.
		Weight of cargo.	Value of cargo.	Maunds.	Tons.			
	ARTICLES OF FOOD.	Mds.	Rs.				Rs. A. P.	A. P.
103	Paddy ... ..	8,500	13,700	17,635	630	19,927	219 15 9	.....
121	Rice ... ..	42,000	1,26,000	84,055	3,002	1,44,586	1,547 7 7	.....
1	Coriander ... ..	50	200	184	7	280	2 10 0	.....
6	Gram ... ..	530	2,100	1,620	36	1,405	14 9 6	.....
12	Jaggery ... ..	1,050	5,250	2,118	76	1,612	21 4 4	.....
2	Sugar ... ..	20	300	176	6	192	2 2 9	.....
15	Salt ... ..	1,800	5,500	3,408	122	2,592	23 5 8	.....
1	Betel leaves ... ..	20	50	60	2	15	0 4 10	.....
7	Spices ... ..	1,000	20,000	2,477	88	3,696	38 15 6	.....
2	Fish (dry) ... ..	30	200	123	4	138	1 5 7	.....
	CLOTHING.							
1	Cotton piece-goods (Indian) ... ..	100	2,000	293	11	440	5 8 0	.....
	STAPLES OF MANUFACTURE.							
1	Iron ... ..	30	130	51	2	30	0 4 0	.....
8	Cotton twist and yarn (European) ... ..	2,000	25,000	3,860	138	6,900	70 7 6	.....
4	Hides ... ..	700	7,000	1,670	60	2,724	28 10 2	.....
1	Castor seed ... ..	20	80	60	2	50	0 9 5	.....
	BUILDING MATERIALS.							
10	Building-stores ... ..	2,600	50	3,672	131	3,686	49 0 6	.....
14	Unwrought timber and piles (76 in number)	4,000	10,000	6,677	238	12,592	152 4 7	.....
	Bamboos (10,825 in number) ... ..	.....	150	.....	.....	.....	10 2 5	.....
	FUEL.							
16	Firewood ... ..	2,100	210	5,856	209	5,918	57 12 0	.....
	COOKING UTENSILS AND OTHER DOMESTIC IMPLEMENTS.							
8	Earthenware and earthen pots ... ..	240	30	514	18	712	7 0 0	.....
	MISCELLANEOUS.							
61	Passenger boats (4,434 passengers in number)	.....	.....	24,044	857	44,371	461 2 2	.....
206	Empty ditto ... ..	.....	.....	45,631	1,630	68,030	352 11 4	.....
2	Chalk ... ..	50	240	105	4	154	1 10 0	.....
42	Miscellaneous goods, &c. ... ..	8,500	50,500	15,072	538	28,186	263 10 1	.....
1	Furniture ... ..	100	200	285	10	400	9 2 0	.....
705	Total ... ..	74,840	2,68,910	2,19,057	7,821	348,626	3,341 15 8	0 1*
690	Total of same month last year ... ..	72,360	3,02,310	1,88,175	6,720	294,053	3,112 12 6	0 2*

## (2)—STORES AND MATERIALS FOR IRRIGATION WORKS.

	MISCELLANEOUS.	Mds.	Rs.	Rs.		Rs. A. P.	A. P.
3	Empty boats ... ..	.....	.....	543	19	798	4 6 3
3	Total ... ..	.....	.....	543	19	798	4 6 3
54	Total of same month last year ... ..	8,950	1,650	20,583	735	27,604	285 6 6

## ABSTRACT.

	Mds.	Rs.	Rs.		Rs. A. P.	
705	Private, including miscellaneous ... ..	74,840	2,68,910	2,19,057	7,821	348,626
3	Government stores, including ditto ... ..	.....	.....	543	19	798
708	Grand Total ... ..	74,840	2,68,910	2,19,600	7,840	349,424
744	Grand Total of same month last year ... ..	82,810	3,03,960	2,08,758	7,455	321,657
	Amount refunded ... ..					350 0 0
						3,748 3 0

## MEMO.

	Rs. A. P.
Unrecovered balance on the 1st of the month ... ..	4,981 2 1
Amount of tollage for the month ... ..	3,346 5 11
Total ... ..	8,327 8 0
Amount credited in the accounts for the month ... ..	2,424 4 5
Balance at the end of the month ... ..	5,903 3 7

\* Of this Rs. 380-2-5 is the collection of Gobri Canal Locks Rs. 811-15-9 is the collection of Kendrapara Extension Locks, and Rs. 2,154-3-9 is the collection of Kendrapara Canal Locks.



## High Level Canal, Range I.

LENGTH OF CANAL OPEN—34 MILES.

## LOCAL TRAFFIC.

(1)—PRIVATE.

Number of boats.	Nature of Cargo.	APPROXIMATE		TONNAGE OF BOATS.		Ton-mileage.	Tollage.	Rate of toll per ton-mile.
		Weight of cargo.	Value of cargo.	Maunds.	Tons.			
	ARTICLES OF FOOD.	Mds.	Rs.				Rs. A. P.	A. P.
23	Paddy ... ..	2,500	3,500	4,203	150	5,100	49 14 0	.....
81	Rice ... ..	7,400	22,500	13,288	474	15,850	134 3 9	.....
7	Cocoanuts ... ..	500	500	834	30	990	10 6 0	.....
1	Jaggery ... ..	90	450	127	5	165	1 9 0	.....
36	Salt ... ..	5,000	15,000	8,861	316	10,428	106 7 0	.....
1	Turmeric ... ..	100	500	145	5	165	1 9 0	.....
1	Fish (dry) ... ..	10	50	42	2	34	0 8 0	.....
	BUILDING MATERIALS.							
1	Ghooting lime ... ..	100	50	148	5	165	1 9 0	.....
5	Unwrought timber and piles (406 in No.)	300	1,000	481	17	442	61 25 9	.....
	COOKING UTENSILS AND OTHER DOMESTIC IMPLEMENTS.							
1	Earthenware and earthenpots ... ..	100	10	159	6	198	1 14 0	.....
	MISCELLANEOUS.							
8	Passenger boat (19 passengers in No.) ...	.....	.....	1,121	40	910	8 5 3	.....
135	Empty ditto ... ..	1,500	.....	11,163	390	10,844	52 4 9	.....
21	Straw ... ..	100	400	3,582	128	1,664	11 6 0	.....
1	Chalk ... ..	5,000	500	180	6	204	2 3 0	.....
40	Miscellaneous goods, &c. ... ..	.....	10,000	9,493	339	9,666	100 11 0	.....
362	Total ... ..	22,500	54,440	53,826	1,922	56,825	544 7 6	0 1'8
534	Total of same month last year ...	20,750	82,400	52,370	1,870	46,478	590 10 9	0 2'4

## (2)—STORES AND MATERIALS FOR IRRIGATION WORKS.

	Mds.	Rs.				Rs. A. P.	A. P.
Nil ... ..	.....	.....	.....	.....	.....	.....	.....
Total ... ..	.....	.....	.....	.....	.....	.....	.....
3 Total of same month last year ...	100	370	1,209	43	1,419	19 8 6	0 2'6

## ABSTRACT.

	Mds.	Rs.				Rs. A. P.	
362 Private, including miscellaneous ...	22,500	54,440	53,826	1,922	56,825	544 7 6	.....
Government stores, including ditto ...	.....	.....	.....	.....	.....	.....	.....
362 Grand Total ... ..	22,500	54,440	53,826	1,922	56,825	544 7 6	.....
337 Grand Total of same month last year ...	20,850	82,770	53,679	1,913	47,897	610 3 3	.....

## MEMO.

Rs. A. P.

Unrecovered balance on the 1st of the month ...	297 13 0
Amount of tollage for the month ...	544 7 6
Total ...	842 4 6
Amount credited in the accounts for the month ...	477 5 0
Balance at the end of the month ...	364 15 6

## High Level Canal, Range II.

LENGTH OF CANAL OPEN—12½ MILLS.

Number of boats.	Nature of Cargo.	APPROXIMATE		TONNAGE OF BOATS.		Ton-mileage.	Tollage.	Rate of toll per ton-mile.
		Weight of cargo.	Value of cargo.	Maunds.	Tons.			

## LOCAL TRAFFIC.

## (1)—PRIVATE.

	ARTICLES OF FOOD.	Mds.	Rs.				Rs. A. P.	A. P.
13	Paddy ... ..	1,100	1,500	2,431	87	882	15 1 6	.....
40	Rice ... ..	3,550	10,600	6,425	230	2,961	40 1 6	.....
2	Turmeric ... ..	100	500	311	11	132	1 15 0	.....
6	Salt ... ..	1,600	4,500	3,298	118	994	20 9 9	.....
1	Tamarind ... ..	50	100	183	7	78	1 2 0	.....
2	Cocoanuts ... ..	200	200	431	15	180	2 11 0	.....
	STAPLES OF MANUFACTURE.							
3	Castor seed ... ..	500	2,000	1,076	38	456	6 11 9	.....
	FUEL.							
2	Firewood ... ..	100	10	182	6	42	2 5 0	.....
	MISCELLANEOUS.							
2	Passenger boat (2 in number) ... ..	.....	.....	254	9	100	1 8 0	.....
70	Empty ditto ... ..	.....	.....	6,211	221	2,519	19 4 6	.....
2	Gunny bags ... ..	200	1,000	455	16	160	2 13 0	.....
...	Small dongahs (67 in number) ... ..	.....	.....	.....	.....	.....	16 9 6	.....
2	Lac ... ..	100	700	575	21	240	4 0 6	.....
145	Total ... ..	7,500	21,110	21,832	779	8,744	134 13 0	0 2 9
107	Total of same month last year ... ..	7,100	28,290	19,668	702	6,880	141 15 6	0 3 9

## (2)—STORES AND MATERIALS FOR IRRIGATION WORKS.

	BUILDING MATERIALS.	Mds.	Rs.				Rs. A. P.	A. P.
17	Gravel ... ..	4,000	60	7,444	266	1,550	46 6 6	.....
	MISCELLANEOUS.							
10	Empty boats ... ..	.....	.....	2,010	72	420	6 9 6	.....
27	Total ... ..	4,000	60	9,454	338	1,970	53 0 0	0 5 9
11	Total of same month last year ... ..	2,300	160	7,096	254	644	38 10 6	0 11 6

## ABSTRACT.

	Mds.	Rs.				Rs. A. P.
145	Private, including miscellaneous ... ..	7,500	21,110	21,832	779	8,744
27	Government stores, including ditto ... ..	4,000	60	9,454	338	1,970
172	Grand Total ... ..	11,500	21,170	31,286	1,117	10,714
118	Grand Total of same month last year ... ..	9,400	28,450	26,764	936	7,524

## MEMO.

	Rs. A. P.
Unrecovered balance on the 1st of the month ... ..	160 11 0
Amount of tollage for the month ... ..	187 13 0
Total ... ..	348 8 0
Amount credited in the accounts for the month ... ..	186 2 3
Balance at the end of the month ... ..	162 5 9



*High Level Canal, Range III.*

LENGTH OF CANAL OPEN—20 MILES.

Number of boats.	Nature of Cargo.	APPROXIMATE		TONNAGE OF BOATS.		Ton-mileage.	Tollage.	Rate of toll per ton mile.
		Weight of cargo.	Value of cargo.	Maunds.	Tons.			

## LOCAL TRAFFIC.

(1)—PRIVATE.

ARTICLES OF FOOD.		Mds.	Rs.				Rs. A. P.	A. P.
26	Rice ... ..	2,200	6,500	4,165	149	2,140	25 15 6	.....
1	Tamarind ... ..	100	200	211	7	126	1 5 0	.....
1	Cocconut ... ..	50	50	104	4	72	0 10 6	.....
1	Turmeric ... ..	50	250	146	5	90	0 14 0	.....
1	Moong ... ..	200	800	318	11	198	2 0 0	.....
2	Salt ... ..	300	1,000	554	20	191	3 7 0	.....
MISCELLANEOUS.								
20	Empty boats ... ..	.....	.....	1,228	44	510	3 11 3	.....
52	Total ... ..	2,900	8,800	6,726	240	3,327	37 15 9	0 2 2
27	Total of same month last year ... ..	1,850	7,020	4,546	163	2,308	29 7 0	0 2 4

(2)—STORES AND MATERIALS FOR IRRIGATION WORKS.

BUILDING MATERIALS.		Mds.	Rs.				Rs. A. P.	A. P.
8	Gravel ... ..	2,500	40	4,076	146	2,250	25 8 6	.....
2	Ghooting ... ..	500	150	807	29	342	5 0 6	.....
MISCELLANEOUS.								
7	Empty boats ... ..	.....	.....	1,805	64	642	4 9 0	.....
17	Total ... ..	3,000	190	6,688	239	3,234	35 2 0	0 2 1
...	Total of same month last year ... ..	.....	.....	.....	.....	.....	.....	.....

## ABSTRACT.

		Mds.	Rs.				Rs. A. P.	A. P.
52	Private, including miscellaneous ...	2,900	8,800	6,726	240	3,327	37 15 9	.....
17	Government stores, including ditto	3,000	190	6,688	239	3,234	35 2 0	.....
69	Grand Total ...	5,900	8,990	13,414	479	6,561	73 1 9	.....
27	Grand Total of same month last year ...	1,850	7,020	4,546	163	2,308	29 7 0	.....

## MEMO.

	Rs. A. P.
Unrecovered balance on the 1st of the month ... ..	137 3 0
Amount to tollage for the month ... ..	73 1 9
Total ... ..	210 4 9
Amount credited in the accounts for the month ... ..	137 3 0
Balance at the end of the month ... ..	173 1 9

## SOUTH-WESTERN CIRCLE.

## Midnapore Canal.

LENGTH OF CANAL OPEN—53 MILES.

## LOCAL TRAFFIC.

(1)—PRIVATE.

Number of boats.	Nature of Cargo.	APPROXIMATE		TONNAGE OF BOATS.		Ton-mileage.	Tollage.	Rate of toll per ton-mile.
		Weight of cargo.	Value of cargo.	Maunds.	Tons.			
	ARTICLES OF FOOD.	Mds.	Rs.				Rs. A. P.	A. P.
489	Paddy	86,835	90,479	1,81,305			2,639 2 9	
563	Rice	1,12,433	2,00,410	2,65,445			2,945 4 3	
13	Wheat	700	3,335	2,750			15 5 0	
110	Gram	18,190	20,985	41,290			380 11 6	
19	Fruits and vegetables	1,005	1,968	2,880			31 9 9	
43	Sugar, unrefined	6,975	24,098	16,765			126 13 4	
75	Salt	22,489	61,581	47,070			434 13 0	
4	Oil	1,300	5,409	2,823			22 14 6	
10	Fish	168	1,117	1,450			6 5 0	
1	Betelnuts	150	2,250	350			3 1 0	
51	Betel leaves	2,685	13,800	8,230			40 0 6	
18	Curd	1,045	5,047	5,200			44 8 6	
22	Cocoanuts (83,800 in number)	125	1,785	4,275			58 14 3	
4	Onion	300	325	775			20 2 0	
	STIMULANTS.							
16	Tobacco	2,375	12,850	5,965			71 11 3	
	CLOTHING.							
9	Cotton piece-goods (Indian)	440	25,200	1,325			10 7 6	
12	Ditto ditto (European)	1,205	1,20,500	3,625			37 10 0	
	STAPLES OF MANUFACTURE.							
33	Brass	5,780	2,05,850	17,790			155 7 0	
7	Iron	834	3,386	1,970			24 2 9	
4	Silk	45	31,070	700			3 15 9	
3	Cotton	70	1,360	775			12 11 6	
44	Do. twist and yarn (European)	7,410	2,93,109	18,125			146 0 3	
31	Jute	4,260	17,040	10,285			47 12 3	
14	Hides (8,020 in number)	1,125	12,675	3,160			42 7 3	
1	Horns	100	800	250			2 3 0	
34	Mustard seed	6,200	24,790	13,725			83 12 6	
	BUILDING MATERIALS.							
5	Tiles (5,900 in number)	250	124	1,950			12 6 0	
6	Lime	375	172	1,165			7 4 0	
25	Sand	11,300	1,130	20,225			75 9 6	
2	Soorkey	200	120	430			1 13 6	
213	Unwrought timber and piles (10,628 in number)	54,124	59,859	56,450			761 7 9	
9	Bamboos (1,360 in number)	167	88	275			4 14 6	
	LIVE-STOCK.							
2	Bullock, oxen and cow (3 in number)	50	240				1 5 9	
1	Sheep and goat (11 ditto)	22	109				1 2 0	
	FUEL.							
24	Coal and coke	6,700	1,738	13,500			79 0 9	
16	Charcoal	4,800	3,030	10,925			115 14 0	
11	Firewood	1,145	389	3,025			14 11 6	
	COOKING UTENSILS AND OTHER DOMESTIC IMPLEMENTS.							
38	Earthenware and earthen pots	4,332	964	10,605			48 4 6	
1	Stone plates	30	60	100			3 0 0	
	MISCELLANEOUS.							
893	Passenger boat			56,600			403 4 9	
1,477	Empty do.			1,67,590			1,080 4 6	
47	Straw (1,517 kahans)	10,490	4,893	37,210			140 11 3	
17	Oil-cake	4,805	2,805	6,815			28 11 6	
10	Furniture	520	800	1,225			15 0 0	
1	Mats	100	100	225			0 13 6	
3	Gunny (400 in number)	120	750	500			1 14 0	
32	Miscellaneous	4,520	3,262	12,055			92 15 3	
29	Other oils	4,038	16,102	9,775			122 6 0	
5	Saji	790	1,587	1,850			23 5 6	
3	Other saline substances	95	80	375			2 0 6	
	Demurrage						61 3 9	
4,480	Total	3,91,580	13,77,978	10,70,984	38,228	7,23,585	17,110 15 3	0 3 4
5,257	Total of same month last year	3,47,567	12,29,392	9,95,694	35,558	5,96,925	9,966 10 9	0 3 0



## Midnapore Canal—concluded.

Number of boats.	Nature of Cargo.	APPROXIMATE		TONNAGE OF BOATS.		Ton-mileage.	Tollage.	Rate of toll per ton-mile.
		Weight of cargo.	Value of cargo.	Maunds.	Tons.			
(2)—STORES AND MATERIALS FOR IRRIGATION WORKS.								
	Nil	.....	.....	.....	.....	.....	.....	.....
	Total	.....	.....	.....	.....	.....	.....	.....
	Total of same month last year	.....	.....	.....	.....	.....	.....	.....

## ABSTRACT.

		Mos.	Rs.				Rs. A. P.	
4,480	Private, including miscellaneous	3,91,589	13,77,978	16,70,384	38,228	723,585	11,110 15 3	.....
...	Government stores, including ditto	.....	.....	.....	.....	.....	.....	.....
4,480	Grand Total	3,91,589	13,77,978	16,70,384	38,228	723,585	11,110 15 3*	.....
5,257	Grand Total of same month last year	3,47,567	12,29,392	9,95,694	35,558	599,023	9,966 10 9	.....

## MEMO.

		Rs. A. P.
Unrecovered balance on the 1st of the month	...	1,726 13 2
Amount of tollage for the month	...	11,110 15 3
	Total	12,836 12 5
Amount credited in the accounts for the month	...	11,373 9 6
Balance at the end of the month	...	1,462 2 11

\* This includes tolls on the Narsinghur channel amounting to Rs. 228-2-3.

## Hidgellee Tidal Canal.

LENGTH OF CANAL OPEN—29 MILES.

## LOCAL TRAFFIC.

## (1)—PRIVATE.

	ARTICLES OF FOOD.	Mds.	Rs.			Rs. A. P.	A. P.
462	Paddy	77,435	83,157	1,62,625	.....	1,914 4 6	.....
107	Rice	17,166	34,132	37,195	.....	318 12 9	.....
17	Fruits and vegetables	592	2,182	2,515	.....	24 6 9	.....
5	Jaggery	690	1,650	2,125	.....	34 9 3	.....
2	Sugar	40	310	200	.....	1 5 6	.....
37	Salt	8,225	20,358	17,900	.....	181 3 6	.....
29	Oil	900	9,000	3,380	.....	32 15 0	.....
STIMULANT.							
56	Tobacco	3,542	21,192	11,305	.....	165 15 9	.....
CLOTHING.							
19	Cotton piece-goods (European)	1,270	31,375	5,090	.....	65 3 9	.....
STAPLES OF MANUFACTURE.							
1	Brass	10	500	30	.....	0 8 6	.....
1	Iron	20	200	130	.....	2 11 6	.....
1	Cotton	10	100	175	.....	1 3 3	.....
6	Jute	350	1,020	835	.....	11 1 3	.....
3	Hides	275	1,550	600	.....	6 6 0	.....
BUILDING MATERIALS.							
6	Bricks	745	132	2,050	.....	14 1 6	.....
1	Tiles	200	40	600	.....	10 14 0	.....
9	Ghooling lime	610	2,130	1,300	.....	8 15 0	.....
4	Sand	629	35	1,315	.....	8 10 3	.....
10	Unwrought timber and piles	3,000	3,110	1,210	.....	71 3 9	.....
1	Bamboos	10	3	10	.....	0 11 9	.....
FUEL.							
3	Coal and coke	700	175	1,575	.....	19 8 9	.....
6	Firewood	390	232	950	.....	8 9 0	.....
COOKING UTENSILS AND OTHER DOMESTIC IMPLEMENTS.							
7	Earthenware and earthenpots	410	200	1,180	.....	19 15 6	.....
2	Stone plates	160	300	475	.....	3 4 3	.....
MISCELLANEOUS.							
93	Passenger boat	.....	.....	6,425	.....	71 9 3	.....
5.1	Empty do.	.....	.....	51,205	.....	451 13 0	.....
85	Straw	17,325	16,638	40,100	.....	276 1 0	.....
13	Mats	1,380	4,050	3,970	.....	32 0 9	.....
16	Miscellaneous	441	1,960	1,445	.....	12 3 6	.....
1	Gunny bags	100	400	225	.....	4 1 3	.....
1,515	Total	1,39,906	2,36,849	3,58,220	12,793	3,703 12 6	0 3 3
1,813	Total of same month last year	1,62,720	3,04,372	4,05,290	14,474	4,078 12 9	0 3 4

*Hidgellee Tidal Canal—concluded.*

Number of boats.	Nature of Cargo.	APPROXIMATE		TONNAGE OF BOATS.		Ton-mileage.	Tollage.	Rate of toll per ton-mile.
		Weight of cargo.	Value of cargo.	Maunds.	Tons.			

## (2)—STORES AND MATERIALS FOR IRRIGATION WORKS.

		Mds.	Rs.				Rs. A. P.	A. P.
...	Nil	...	...	...	...	...	...	...
...	Total	...	...	...	...	...	...	...
...	Total of same month last year	...	...	...	...	...	...	...

## ABSTRACT.

		Mds.	Rs.				Rs. A. P.	A. P.
1,515	Private, including miscellaneous	1,36,996	2,36,849	3,58,220	12,703	208,503	3,703 12 9	...
...	Government stores, including ditto	...	...	...	...	...	...	...
1,515	Grand Total	1,36,996	2,36,849	3,58,220	12,703	208,503	3,703 12 9	...
1,813	Grand total of same month last year	1,62,720	3,04,372	4,05,290	14,474	227,131	4,078 12 9	...

## MEMO.

		Rs. A. P.
Unrecovered balance on the 1st of the month	...	1,403 0 6
Amount of tollage for the month	...	3,703 12 9
	Total	5,105 13 3
Amount credited in the accounts for the month	...	4,488 14 6
Balance at the end of the month	...	616 14 9

## SONE CIRCLE.

*Eastern Main and Patna Canals.*

LENGTH OF CANAL OPEN—86½ MILES.

## LOCAL TRAFFIC.

## (1)—PRIVATE.

	ARTICLES OF FOOD.	Mds.	Rs.				Rs. A. P.	A. P.
2	Rice	15	40	50	12	35	0 6 3	...
1	Wheat	30	150	45	21	84	0 14 3	...
1	Gram	125	250	321	112	231	2 7 0	...
1	Fruits and vegetables	200	500	398	142	895½	8 12 9	...
2	Jaggery	350	520	662	224	496½	5 1 3	...
8	Salt	1,155	4,981	2,301	82½	6,445	59 14 0	...
1	Ghee	50	1,300	120	4	252	3 2 0	...
	STIMULANT.							
1	Tobacco	150	400	297	10½	633	6 7 3	...
	STAPLES OF MANUFACTURE.							
...	Tin	...	...	...	...	...	1 0 0*	...
1	Cotton	200	3,000	442	15½	949	9 15 6	...
5	Hides	555	4,450	1,062	37	2,279	24 10 0	...
20	Horn	4,775	14,800	8,309	298½	10,061	200 6 7	...
	BUILDING MATERIALS.							
4	Stone lime	750	160	1,423	40	2,491	35 15 0	...
1	Kunkur	...	...	214	7½	112	0 10 0	...
...	Unwrought timber and piles (33 timbers)	...	...	...	...	...	6 3 0	...
24	Chowillas	...	...	369	13	260	2 11 9	...
...	Builahs (215 in number)	...	...	...	...	...	0 4 3	...
...	Bamboo (820,365 in number)	...	...	...	...	...	388 12 9	...
	FUEL.							
...	Firewood (4,535 No.)	...	...	...	...	...	11 4 3	...
	COOKING UTENSILS AND OTHER DOMESTIC IMPLEMENTS.							
2	Earthware and earthen pots	65	16	370	17½	279½	2 13 6	...
	MISCELLANEOUS.							
1	Sugarcane mills	160	1,600	219	7½	38½	0 6 0	...
4	Passenger boat	...	...	539	18½	738	7 8 3	...
51	Empty do.	...	...	5,559	196½	6,287½	33 6 3	...
1	Wooden toys	125	200	238	8½	48½	5 4 3	...
47	Miscellaneous goods	6,725	24,399	12,269	437½	27,789½	286 13 6	...
178	Total	15,370	55,857	35,320	1,248½	69,544½	1,009 1 9	0 3 0
398	Total of same month last year	65,598	1,80,721	1,16,648	4,196½	269,221½	2,523 6 0	0 1 7

\* Omitted to be charged in April's return.



*Eastern Main and Patna Canals—concluded.*

Number of boats.	Nature of Cargo.	APPROXIMATE		TONNAGE OF BOATS.		Ton-mileage.	Tollage.	Rate of toll per ton-mile.
		Weight of cargo.	Value of cargo.	Maunds.	Tons.			

(2)—STORES AND MATERIALS FOR IRRIGATION WORKS.

BUILDING MATERIALS.		Mds.	Rs.				Rs. A. P.	A. P.
1	Road metal ... ..	150	35	262	9½	46½	0 3 9	.....
1	Sai planks ... ..	20	60	211	7½	475	4 11 0	.....
1	Timber ... ..	60	40	217	8½	136	1 10 0	.....
MISCELLANEOUS.								
2	Empty boats ... ..	.....	.....	246	8½	175	0 15 0	.....
5	Total ... ..	230	135	936	34	832½	7 7 9	0 17
21	Total of same month last year ...	3,050	610	6,230	222	13,890	78 12 3	0 10

ABSTRACT.

		Mds.	Rs.				Rs. A. P.	A. P.
178	Private, including miscellaneous ... ..	15,370	55,857	35,320	1,248½	69,844½	1,099 1 9	.....
5	Government stores, including ditto ...	230	135	936	34	832½	7 7 9	.....
183	Grand Total ... ..	15,600	55,992	36,256	1,282½	70,677½	1,106 9 6	.....
419	Grand total of same month last year ...	68,558	1,81,331	1,22,878	4,418½	283,111½	2,602 2 3	.....

MEMO.

	Rs. A. P.
Unrecovered balance on the 1st of the month ... ..	507 12 0
Amount of tollage for the month ... ..	1,106 9 6
Total ... ..	1,614 6 0
Amount credited in the accounts for the month ... ..	1,283 14 0
Balance at the end of the month ... ..	330 8 0

*Western Main Canal.*

LENGTH OF CANAL OPEN—22 MILES.

LOCAL TRAFFIC.

(1)—PRIVATE.

ARTICLES OF FOOD.		Mds.	Rs.				Rs. A. P.	A. P.
2	Spices (zeerah) ... ..	750	15,000	1,250	44	908	7 13 0	
STAPLES OF MANUFACTURE.								
1	Hides (skin) ... ..	310	400	450	16	160	2 13 0	
7	Linseed ... ..	3,530	14,120	4,725	168	3,696	29 8 0	
1	Mustard seed ... ..	600	2,400	725	26	1,820	4 8 6	
COOKING UTENSILS AND OTHER DOMESTIC IMPLEMENTS.								
11	Grind-mill stone ... ..	4,933	5,416	6,175	220	4,840	44 12 9	
MISCELLANEOUS.								
5	Empty boat ... ..	.....	.....	275	9	261	1 1 6	
...	Excess toll ... ..	.....	.....	.....	.....	.....	3 1 0	
27	Total ... ..	10,023	34,336	15,600	483	11,085	93 10 3	0 15
28	Total of same month last year ...	8,398	16,986	13,025	463	6,071	75 15 0	0 24

*Western Main Canal—concluded.*

Number of boats.	Nature of Cargo.	APPROXIMATE		TONNAGE OF BOATS.		Ton-mileage.	Tollage.	Rate of toll per ton-mile.
		Weight of cargo.	Value of cargo.	Maunds.	Tons.			

## (2)—STORES AND MATERIALS FOR IRRIGATION WORKS.

	BUILDING MATERIALS.	Mds.	Rs.				Rs. A. P.	
2	Building stones (mile stone) ... ..	800	40	1,300	40	1,794	11 9	.....
2	Total ... ..	800	40	1,300	40	1,794	11 2 9	6 1 1
4	Total of same month last year ...	1,000	50	1,700	60	826	5 5 0	0 1 2

## ABSTRACT.

		Mds.	Rs.				Rs. A. P.	
27	Private, including miscellaneous ...	10,023	34,336	13,600	483	11,685	95 10 3	.....
2	Government stores, including ditto ...	800	40	1,300	46	1,794	11 2 9	.....
29	Grand Total ... ..	10,823	34,376	14,900	529	13,479	104 13 0	.....
32	Grand total of same month last year ...	9,608	16,136	14,725	523	6,807	81 4 0	.....

## MEMO.

Unrecovered balance on the 1st of the month	...	...	...	...	...	153 14 6
Amount of tollage for the month	...	...	...	...	...	104 13 0
				Total	...	258 11 6
Amount credited in the accounts for the month	...	...	...	...	...	184 6 6
Balance at the end of the month	...	...	...	...	...	74 5 0

*Arrah Canal.*

## LENGTH OF CANAL OPEN—65 MILES.

## LOCAL TRAFFIC.

## (1)—PRIVATE.

	ARTICLES OF FOOD.	Mds.	Rs.				Rs. A. P.	A. P.
24	Pulses and other crops ... ..	2,516	5,032	4,316	154	3,962	44 5 9	.....
13	Fruits and vegetables ... ..	179	2,365	1,164	41	372	4 13 0	.....
1	Jaggery ... ..	50	168	131	4	168	1 15 3	.....
10	Sugar ... ..	2,783	27,830	3,533	126	4,772	52 0 6	.....
23	Salt ... ..	7,002	21,276	8,817	314	17,432	161 5 3	.....
7	Spices ... ..	1,476	14,760	2,001	71	4,158	28 0 3	.....
	STIMULANTS.							
1	Tobacco ... ..	90	900	171	6	120	1 3 6	.....
	CLOTHING.							
2	Cotton piece-goods (Indian) ... ..	65	2,560	215	7	298	3 8 3	.....
	STAPLES OF MANUFACTURE.							
1	Tin ... ..	38	275	88	4	126	1 4 0	.....
1	Hides ... ..	376	7,520	456	16	1,120	7 0 6	.....
1	Indigo ... ..	116	2,150	236	8	256	3 8 3	.....
13	Linseed ... ..	5,388	16,014	6,313	225	14,794	102 1 9	.....
1	Mustard-seed ... ..	651	1,951	926	25	1,820	11 5 3	.....
	BUILDING MATERIALS.							
7	Building stones ... ..	2,472	231	3,172	113	7,058	32 0 3	.....
3	Stone lime ... ..	365	365	590	21	792	8 6 0	.....
8	Kunkur ... ..	2,903	290	3,593	128	1,500	7 10 0	.....
	Bullahs } 2,035 in number	.....	.....	.....	.....	.....	2 10 0	.....
	Bamboos }							
	FUEL.							
2	Coal and coke ... ..	356	178	506	18	360	1 15 0	.....
3	Firewood ... ..	542	180	767	27	320	3 5 9	.....
	MISCELLANEOUS.							
35	Passenger boat ... ..	.....	.....	2,742	98	2,026	21 9 0	.....
92	Empty do. ... ..	.....	.....	7,012	251	4,014	23 1 9	.....
1	Straw ... ..	10	5	30	1	16	0 3 0	.....
11	Furniture ... ..	841	2,192	1,665	59	1,616	14 3 3	.....
260	Total ... ..	28,361	1,06,251	48,465	1,717	67,100	537 13 6	0 1 5
214	Total of same month last year ...	22,115	85,447	50,955	1,810	81,305	699 14 6	0 1 5



*Arrah Canal—concluded.*

Number of boats.	Nature of Cargo.	APPROXIMATE		TONNAGE OF BOATS.		Ton $\frac{1}{2}$ mileage	Tollage.	Rate per toll per ton-mile.
		Weight of cargo.	Value of cargo.	Maunds.	Tons.			
(2) STORES AND MATERIALS FOR IRRIGATION WORKS.								
	BUILDING MATERIALS.	Mds.	Rs.				Rs. A. P.	A. P.
1	Building stones ... ..	375	937	450	16	928	4 14 9	.....
	MISCELLANEOUS.							
2	Empty boats ... ..	.....	.....	350	12	480	2 10 6	.....
1	Stores, &c. ... ..	117	294	192	6	420	3 13 3	.....
4	Total ... ..	492	1,231	992	34	1,828	11 6 6	0 1 2
11	Total of same month last year ...	2,561	7,338	4,208	148	5,074	46 6 6	0 1 7

ABSTRACT.

		Mds.	Rs.				Rs. A. P.	
260	Private, including miscellaneous	28,361	1,06,251	48,465	1,717	67,100	537 13 6	.....
4	Government stores, including ditto	492	1,231	992	34	1,828	11 6 6	.....
264	Grand Total	28,853	1,07,482	49,457	1,751	68,928	549 4 0	.....
245	Grand total of same month last year	24,676	92,785	55,163	1,958	86,379	746 5 0	.....

MEMO.

					Rs. A. P.
Unrecovered balance on the 1st of the month	...	...	...	...	245 8 0
Amount of tollage for the month	...	...	...	...	549 4 0
				Total	794 12 0
Amount credited in the accounts for the month	...	...	...	...	595 11 6
Balance at the end of the month	...	...	...	...	199 0 6

*Buxar Canal.*

LENGTH OF CANAL OPEN—45 MILES.

LOCAL TRAFFIC.

(1)—PRIVATE.

	ARTICLES OF FOOD.	Mds.	Rs.				Rs. A. P.	Rs. A.
1	Gram ... ..	300	700	425	15	900	10 1 6	.....
3	Salt ... ..	1,056	2,212	1,575	56	2,520	30 12 0	.....
	STIMULANTS.							
1	Tobacco ... ..	125	500	200	7	112	1 2 0	.....
	STAPLES OF MANUFACTURE.							
5	Linseed ... ..	1,375	4,025	1,550	55	1,126	28 11 6	.....
2	Mowah ... ..	339	839	450	16	720	2 10 3	.....
	BUILDING MATERIALS.							
...	Bullahs 88, chowdhars 32, bamboos 39,200 in number.	.....	.....	.....	.....	.....	26 12 0	.....
	FUEL.							
7	Firewood ... ..	7,203	2,432	9,128	323	20,842	57 12 6	.....
	COOKING UTENSILS AND OTHER DOMESTIC IMPLEMENTS.							
12	Stone-mills ... ..	4,534	300	5,667	202	13,534	58 6 6	.....
	MISCELLANEOUS.							
11	Empty boats ... ..	.....	.....	1,025	26	654	3 14 0	.....
1	Ditto coops ... ..	25	100	75	2	108	1 0 6	.....
...	Excess tollage ... ..	.....	.....	.....	.....	.....	2 1 0	.....
43	Total ... ..	14,957	10,608	20,095	715	40,516	293 3 2	0 0 9
36	Total of same month last year ...	4,779	12,558	7,927	246	12,148	198 1 0	0 3 1

*Buxar Canal—concluded.*

Number of boats.	Nature of Cargo.	APPROXIMATE		TONNAGE OF BOATS.		Ton-mileage.	Tollage.	Rate of toll per ton-mile.
		Weight of cargo.	Value of cargo.	Mauuds.	Tons.			

## (2)—STORES AND MATERIALS FOR IRRIGATION WORKS.

	MISCELLANEOUS.	Mds.	Rs.				Rs. A. P.	A. P.
1	Empty boats ... ..	.....	.....	175	6	324	1 12 0	.....
1	Total ... ..	.....	.....	175	6	324	1 12 0	0 1 0
1	Total of same month last year ... ..	.....	.....	300	10	580	6 9 0	0 2 1

## ABSTRACT.

		Mds.	Rs.				Rs. A. P.	
43	Private, including miscellaneous ... ..	14,957	10,608	20,095	715	40,516	203 3 0	.....
1	Government stores, including ditto ... ..	.....	.....	175	6	324	1 12 0	.....
44	Grand Total ... ..	14,957	10,608	20,270	721	40,840	204 15 9	.....
37	Grand total of same month last year ... ..	4,779	12,558	7,327	256	12,728	204 10 0	.....

## MEMO.

						Rs. A. P.
Unrecovered balance on the 1st of the month	...	...	...	...	...	40 15 0
Amount of tollage for the month	...	...	...	...	...	204 15 9
Total	...	...	...	...	...	245 14 9
Amount credited in the accounts for the month	...	...	...	...	207 11 6	
Add amount less credited in September 1884	...	...	...	...	4 8 3	
Balance at the end of the month	...	...	...	...	...	212 3 9
						33 11 0

## ABSTRACT FOR THE MONTH OF OCTOBER 1884.

CANAL.	TRAFFIC, 1884-85.		TRAFFIC, 1883-84.		REMARKS.
	During the month.	To end of the month.	During the corresponding month.	To end of the corresponding month.	
ORISSA CIRCLE.					
Taldunda	Rs. A. P. 224 11 11	Rs. A. P. 691 14 9	Rs. A. P. 220 12 11	Rs. A. P. 2,012 13 7	
Kendrapara	3,346 5 11	17,643 1 7	3,748 3 0	22,816 12 0	
High Level, Range I	544 7 6	2,889 5 3	610 3 3	3,596 14 9	
Ditto, ditto II	187 13 0	1,214 10 9	180 10 0	1,906 14 3	
Ditto, ditto III	73 1 9	556 8 9	29 7 0	453 14 11	
Total Orissa Circle	4,375 8 1	22,995 9 1	4,789 4 2	30,787 5 6	
SOUTH-WESTERN CIRCLE.					
Midnapore	11,110 15 3	70,251 4 3	9,966 10 9	70,655 3 8	
Hidgelise Tidal	3,703 12 9	29,791 12 0	4,078 12 9	41,902 11 0	
Total South-Western Circle	14,814 12 0	1,00,043 0 3	14,045 7 6	1,12,557 14 8	
SONE CIRCLE.					
Eastern Main and Patna	1,106 9 6	14,451 2 6	2,602 2 3	15,730 11 0	
Western Main	101 13 0	673 7 0	81 4 0	1,314 6 9	
Arrah	540 4 0	4,424 9 3	740 5 0	11,128 1 3	
Buxar	204 15 9	1,187 8 0	204 10 0	4,145 2 3	
Total Sone Circle	1,965 10 3	20,736 10 9	3,634 5 3	32,518 5 3	
GRAND TOTAL	21,156 14 4	1,43,775 4 1	22,469 0 11	1,76,163 9 5	



## GOVERNMENT TRANSPORT SERVICE.

CANAL.	TRAFFIC, 1884-85.						TRAFFIC, 1883-84.					
	During the month.			To end of the month.			During the corresponding month.			To end of the corresponding month.		
	Passengers.	Goods.	Total receipts.	Passengers.	Goods.	Total receipts.	Passengers.	Goods.	Total receipts.	Passengers.	Goods.	Total receipts.
ORISSA CANAL.	No.	Mds.	Rs. A. P.	No.	Mds.	Rs. A. P.	No.	Mds.	Rs. A. P.	No.	Mds.	Rs. A. P.
Taldunda and Kendrapara	...	...	...	7,420	9,810	10,589 10 11	2,725	...	4,983 4 2	11,342	2,487	19,358 7 9
High Level	1,210	1,189	1,341 6 0	4,206	8,011	4,895 8 4	777	1,107	837 2 2	3,617	6,111	4,146 9 0
Total Orissa Canal	1,210	1,189	1,341 6 0	11,626	17,821	15,485 3 3	3,502	1,107	5,820 6 4	14,959	8,598	23,505 0 9
SOUTH-WESTERN CIRCLE.												
Midnapore	16,216	960	750 0 0	99,105	5,528	5,250 0 0	10,659	254	1,000 0 0	78,014	2,387	7,000 0 0
Total South-Western Circle	16,216	960	750 0 0	99,105	5,528	5,250 0 0	10,659	254	1,000 0 0	78,014	2,387	7,000 0 0
SONE CIRCLE.												
Eastern Main and Patna	...	568	317 13 3	...	4,068	2,280 10 0	1,159	2,175	937 0 0	4,200	12,757	3,866 3 3
Western Main and Buxar	1,307	4,531	900 7 3	5,420	13,501	4,263 10 0	1,364	3,252	1,113 9 3	10,453	20,440	7,027 12 3
Arrah	1,429	1,332	993 0 0	8,009	7,544	5,741 0 0	2,695	1,941	1,732 0 0	16,478	13,614	11,079 0 0
Total Sone Circle	2,736	6,431	2,271 4 6	13,429	25,113	12,285 4 0	5,218	7,368	3,802 9 3	31,131	46,811	21,972 15 6
GRAND TOTAL	20,162	8,580	4,362 10 6	124,160	48,492	33,020 7 3	19,379	8,729	10,622 15 7	124,164	57,796	52,478 0 3

## TOTAL NAVIGATION RECEIPTS.

	EARNINGS, 1884-85.		EARNINGS, 1883-84.		REMARKS.
	During the month.	To end of the month.	During the corresponding month.	To end of the corresponding month.	
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	
Orissa Canals	5,717 14 1	38,480 12 4	10,609 10 6	54,292 6 3	
Midnapore Canal	11,860 15 3	75,501 4 3	10,966 10 9	77,655 3 8	
Hidgellee Tidal Canal	3,703 12 9	29,791 12 0	4,078 12 9	41,902 11 0	
Sone Canals	4,236 14 9	33,021 14 9	7,436 14 6	54,791 4 9	
GRAND TOTAL	25,519 3 10	1,76,795 11 4	33,082 0 6	2,28,641 9 8	

CALCUTTA,  
The 23rd December 1884.

C. W. ODLING,  
Under-Secy. to the Government of Bengal.

## PUBLIC WORKS DEPARTMENT, IRRIGATION BRANCH, BENGAL.

Statement showing the total amount of Traffic and Tolls on the Circular Canal at the Chitpur Toll Station for the month of November 1884.

Number of boats.	NATURE OF CARGO.	APPROXIMATE		TONNAGE OF BOATS.		Tollage.
		Weight of cargo.	Value of cargo.	Maunds.	Tons.	
	LOCAL TRAFFIC.	Mds.	Rs.			Rs. A. P.
215	Coal ...	1,63,940	61,477	3,36,450	12,016	2,226 9 0
2	Roadstone ...	1,300	313	2,600	92	9 12 0
2	Bricks ...	18,000	180	2,800	100	10 8 0
18	Earthenware ...	1,200	600	6,500	232	24 14 0
16	Sand ...	6,550	1,965	15,275	545	68 8 6
5	Iron ...	1,670	10,020	4,050	144	35 7 0
1	Cotton ...	8	120	550	19	4 13 0
6	Jute ...	2,560	7,680	5,225	186	19 9 6
5	Mats ...	500	280	1,225	43	11 11 6
6	Paddy ...	2,450	3,675	5,525	197	48 5 6
1	Rice ...	150	525	300	10	1 2 0
1	Wheat ...	175	612	1,100	39	9 10 0
1	Gram ...	60	150	525	18	4 9 6
2	Tobacco ...	300	2,400	625	22	5 7 6
524	Salt ...	2,37,097	6,42,742	5,19,200	18,542	4,381 4 0
13	Bones ...	1,650	1,650	4,400	157	28 2 0
818	Total ...	4,37,610	7,34,389	9,06,350	32,362	6,890 5 0
884	Total of same month last year.	4,23,050	6,99,225	9,35,525	33,412	7,193 11 6
	MISCELLANEOUS.					
950	Empty, passenger, planks, golepatta, charcoal, fowls, &c.	10,925	43,700	6,08,700	21,739	3,176 12 6
210	Boats under 25 maunds	.....	.....	.....	.....	52 8 0
.....	Demurrage ...	.....	.....	.....	.....	60 0 9
1,160	Total ...	10,925	43,700	6,08,700	21,739	3,289 5 3
1,250	Total of same month last year.	1,02,400	51,000	3,55,200	12,685	2,683 8 3
1,978	Grand Total ...	4,48,535	7,78,089	15,15,050	54,101	10,179 10 3
2,134	Grand total of same month last year.	5,25,450	7,50,225	12,90,725	46,097	9,877 3 9

## MEMORANDUM.

Rs. A. P.

Unrecovered balance on the 1st of the month	...	...	...	4 02 10 0
Amount of tollage for the month	...	...	...	10,179 10 3
		Total	...	10,582 4 3
Amount credited in the accounts for the month	...	...	...	9,395 0 0
Balance at the end of the month	...	...	...	1,187 4 3



## PUBLIC WORKS DEPARTMENT, IRRIGATION BRANCH, BENGAL.

Statement showing the total amount of Traffic and Tolls on the Circular Canal at the Dhappa Toll Station for the month of November 1884.

Number of boats.	NATURE OF CARGO.	APPROXIMATE		TONNAGE OF BOATS.		Tollage.
		Weight of cargo.	Value of cargo.	Maunds.	Tons.	
	LOCAL TRAFFIC.	Mds.	Rs.			Rs. A. P.
9	Earthenware ...	400	200	1,150	41	10 1 0
49	Lime ...	55,247	42,304	1,07,400	3,835	939 12 0
431	Firewood ...	2,33,400	35,010	4,10,075	14,645	3,374 1 0
14	Iron ...	808	4,848	3,275	117	28 10 6
3	Brass ...	300	9,000	3,950	141	18 4 3
3	Cotton ...	1,700	25,500	4,500	160	39 6 0
1,333	Jute ...	9,92,741	29,78,223	19,60,925	70,033	17,162 13 6
47	Mats ...	7,250	10,785	22,825	815	199 11 6
5	Paddy ...	1,075	1,612	2,150	76	19 11 0
316	Rice ...	1,33,862	4,68,517	2,45,375	8,763	2,412 13 0
27	Gram ...	12,180	30,450	28,275	1,009	244 4 0
2	Linseed ...	780	2,730	1,575	56	13 12 6
41	Mustard-seed ...	24,858	99,432	49,800	1,778	432 14 6
188	Other oils ...	42,385	1,69,540	1,12,750	4,026	493 4 6
58	Oil-cake ...	19,900	19,900	43,025	1,536	376 7 6
77	Fruits ...	14,475	57,900	29,375	1,049	257 0 6
114	Vegetables ...	18,379	45,947	37,450	1,337	327 11 0
4	Tobacco ...	580	4,640	1,100	39	6 12 6
2	Spices ...	492	3,936	1,050	37	9 3 0
3	Cocoanut ...	3,91,000	9,775	3,200	114	28 0 0
28	Grass for cattle ...	454	2,216	2,875	102	72 6 6
27	Straw ...	516	2,580	9,450	337	82 11 0
34	Betelnuts ...	7,770	77,700	16,975	606	148 8 6
8	Sugar, unrefined ...	1,340	11,720	2,950	105	25 13 0
81	Jaggery ...	18,580	55,740	34,350	1,226	300 9 0
58	Salt ...	4,749	11,872	15,000	535	65 10 0
12	Hides ...	3,417	6,834	1,050	37	9 3 0
30	Bones ...	4,835	4,835	10,350	369	90 9 0
24	Dry fish ...	400	4,000	2,550	91	22 5 0
3,028	Total ...	19,93,873	41,97,746	31,64,775	1,13,015	27,212 4 9
3,769	Total of same month last year.	16,50,235	49,17,720	33,89,975	1,21,072	27,926 8 9
	MISCELLANEOUS.					
3,482	Empty, passenger, fish, golepatta, planks, tamarind, onion, charcoal, fowls, shells, canes, &c.	1,17,200	4,68,800	4,90,550	17,519	4,292 5 9
455	Boats under 25 maunds	.....	.....	.....	.....	113 12 0
.....	Demurrage	.....	.....	.....	.....	683 15 6
3,837	Total ...	1,17,200	4,68,800	4,90,550	17,519	5,090 1 3
5,102	Total of same month last year.	2,41,000	10,23,000	6,13,675	21,916	6,688 7 0
6,965	Grand Total ...	21,11,073	46,66,546	36,55,325	1,30,534	32,302 6 0
8,871	Grand total of same month last year.	18,91,235	59,40,720	40,03,650	1,42,988	34,614 15 9

## MEMORANDUM.

	Rs. A. P.
Unrecovered balance on the 1st of the month ...	1,081 10 0
Amount of tollage for the month ...	32,302 6 0
Total ...	33,384 0 0
Amount credited in the accounts for the month ...	30,085 1 0
Balance at the end of the month ...	3,298 15 0

## PUBLIC WORKS DEPARTMENT, IRRIGATION BRANCH, BENGAL.

Statement showing the total amount of Traffic and Tolls on the Tolly's Nullah for the month of November 1884.

Number of boats.	NATURE OF CARGO.	APPROXIMATE		TONNAGE OF BOATS.		Tollage.
		Weight of cargo.	Value of cargo.	Maunds.	Tons.	
	LOCAL TRAFFIC.	Mds.	Rs.			Rs. A. P.
83	Coal ...	33,027	12,385	70,375	2,512	321 8 0
39	Roadstone ...	23,200	5,568	49,650	1,773	186 3 0
205	Bricks ...	5,52,500	5,525	1,10,675	3,952	416 8 6
22	Tiles ...	24,400	732	11,625	414	46 2 6
107	Earthenware ...	1,190	730	20,375	727	98 10 0
31	Sand ...	14,950	4,485	36,025	1,286	135 1 6
3	Lime ...	55	45	75	2	0 12 0
152	Firewood ...	36,910	9,227	79,150	2,820	592 3 3
10	Iron ...	3,000	18,000	7,175	256	38 2 6
9	Cotton ...	1,661	24,915	2,750	96	24 3 0
7	Jute ...	1,501	4,503	3,250	115	28 7 6
76	Mats ...	7,800	10,218	30,000	1,070	254 6 6
298	Paddy ...	33,243	49,864	90,875	3,244	628 3 6
996	Rice ...	91,374	3,19,808	1,82,725	6,529	1,141 7 6
25	Gram ...	3,056	7,640	6,525	232	55 9 9
30	Mustard seed ...	14,165	56,660	30,150	1,076	237 15 0
39	Other oils ...	5,519	22,076	14,600	521	64 6 9
2	Oil-cake ...	17	17	125	4	11 0 0
1	Fruits ...	100	400	275	9	1 0 6
26	Vegetables ...	2,432	6,079	7,925	282	31 3 0
20	Tobacco ...	3,235	25,880	8,800	313	46 1 0
2	Spices ...	165	1,320	500	16	4 6 6
10	Cocoanut ...	3,500	105	250	8	2 8 0
1	Grass for cattle ...	5	20	150	5	1 5 0
443	Straw ...	2,876	14,380	51,400	1,799	363 6 0
1	Betelnuts ...	550	5,500	1,100	39	9 10 0
4	Sugar, unrefined ...	335	2,680	700	24	6 2 6
99	Jaggery ...	15,312	45,936	33,400	1,192	292 8 0
114	Salt ...	34,830	87,074	83,575	2,984	578 2 0
10	Cattle ...	786	1,572	850	29	7 8 6
2	Hides ...	2,400	4,800	750	26	6 9 0
1	Dry fish ...	10	100	300	10	1 2 0
2,868	Total ...	9,14,104	7,48,244	9,36,100	33,365	5,632 6 9
4,487	Total of same month last year.	6,06,507	11,77,100	10,98,075	39,205	7,914 7 6
	MISCELLANEOUS.					
3,932	Empty, passenger, planks, cheerah, soor-kee, fish, betel, gole-pata, bamboos, char-coals, shells, &c.	49,310	1,97,240	5,49,725	19,632	3,402 4 3
182	Boats under 25 maunds	.....	.....	.....	.....	45 8 0
.....	Demurrage ...	.....	.....	.....	.....	181 0 6
4,114	Total ...	49,310	1,97,240	5,49,725	19,632	3,628 12 9
4,119	Total of same month last year.	76,338	1,58,010	2,34,834	8,391	4,177 5 9
6,982	Grand Total ...	9,63,414	9,45,484	14,85,825	52,997	9,261 3 6
8,606	Grand total of same month last year.	6,82,845	13,35,110	13,32,909	47,596	12,091 13 3

## MEMORANDUM.

	Rs. A. P.
Unrecovered balance on the 1st of the month	334 15 6
Amount of tollage for the month	9,261 3 6
Total	9,645 3 0
Amount credited in the accounts for the month	8,870 13 3
Balance at the end of the month	775 5 9



## ABSTRACT FOR THE MONTH OF NOVEMBER 1884.

	TRAFFIC, 1884-85.				TRAFFIC, 1883-84.			
	During the month.		To end of the month.		During the corresponding month.		To end of the corresponding month.	
	Rs.	A. P.	Rs.	A. P.	Rs.	A. P.	Rs.	A. P.
<b>CIRCULAR CANAL.</b>								
Circular Canal at Chitpore toll-station ...	10,179	10 3	54,459	7 3	9,877	3 9	50,553	1 0
Ditto at Dhappa toll-station ...	32,302	6 0	1,56,961	9 9	34,614	15 9	1,75,951	11 9
Total ...	42,482	0 3	2,11,421	1 0	44,492	3 6	2,26,504	12 9
Tolly's Nullah ...	9,261	3 6	66,148	11 0	12,091	13 3	76,901	7 0
GRAND TOTAL ...	51,743	3 9	2,77,869	12 0	56,584	0 9	3,03,406	3 9

CALCUTTA,  
The 23rd December 1884.

C. W. ODLING,  
Under-Secretary to the Govt. of Bengal.

## Nalhati State Railway

Statement showing Increases and Decreases in maundage of Staples carried over the line during the month of October 1884, as compared with the corresponding period of November 1883.

STAPLES.	1883.		1884.		1883.	1884.	Increase.	Decrease.
	Up.	Down.	Up.	Down.	Total.	Total.		
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Brass bell-metal ware ...	144	4	4	5	4	9	5	...
Coal ...	29	...	541	...	144	541	397	...
Cotton ...	109	35	21	...	29	21	...	8
Edible grain ...	43	...	59	8	144	35	...	109
Piece-goods ...	3	...	4	...	43	59	16	...
Sugar and jagree ...	...	16	...	9	3	4	1	...
Silk and silk cloth ...	...	35	...	32	16	9	...	7
Sundries ...	90	...	98	...	125	120	...	5
Revenue stores ...	...	16	...	4	...	20	20	...
Seeds of all sorts ...	...	13	...	...	13	2	...	11
Salt ...	28	...	37	...	28	37	9	...
Total ...	446	103	709	58	549	837	443	140

**INCREASE.**

Coal ... 397

This increase is due to one of the coal merchants stacking up per sale.

Piece-goods ... 16

This increase is due to previous stock being entirely exhausted.

Revenue stores ... 20

This increase is due to revenue stores being carried by ordinary train instead of by ballast train.

**DECREASE.**

Edible grain ... 109

This decrease is due to partial failure of paddy crops for want of early rain.

Nalhati, the 17th December 1884.

RUSSICKLAL ROY,  
Offg. Manager.

## TIRHOOT STATE RAILWAY.

Statement showing Increases and Decreases in Maundage of Principal Staples carried over the Line during the month of November 1884, as compared with the corresponding period of 1883.

STAPLES.	1884.		1883.		Total.		Increase.	Decrease.
	Up.	Down.	Up.	Down.	1884.	1883.		
	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.
Bamboos and bricks	7,253	17	3,537		7,253	3,537	3,716	
Coal and coke	1,472	129	17,377	151	1,489	17,528	1,489	8,140
Cotton	25,539	20,332	1,043	11,129	25,539	11,129	9,203	
Piece-goods	1,300	1,043	1,685	254	2,343	1,939	404	
Indigo	236	60			296		296	
Gunny-bags	67,840	27,218	19,760	25,777	95,056	45,537	49,519	
Fruits	109	9,517	103	8,161	9,626	8,264	1,362	
Food-grains	590				590		590	
Hides and horns	1,128		11,181	65	1,128	11,246		10,118
Lac	838	114			952		952	
Lime and kunkur								
Liquors								
Metal—								
I.—Iron	6,655	8	3,057	96	6,658	3,153	3,475	
II.—Brass, bell-metal, and copperware	832	882			1,214		1,214	
Mowah	1,742				1,742		1,742	
Oil	900	20			920		920	
Oilcake	13	2,028			2,041		2,041	
Paints and colours	91				91		91	
Ghee	8	3,415		995	3,423	995	2,428	
Railway materials	31,986	18,676	32,942	8,335	50,661	71,297		20,636
Salt	60,225	270	39,065	4,673	60,495	43,738	16,757	
Saltpetre		28,141		34,078	28,141	34,078		5,937
Seeds	731	71,854	6,350	37,739	72,585	44,069	28,516	
Spices	556	4			560		560	
Sugar and jaggree	231	1,841			2,072		2,072	
Tobacco	343	7,591	2	10,064	7,934	10,066		2,132
Wood—								
I.—Timber	6,591	6,685			13,276		13,276	
II.—Firewood		30			30		30	
All other goods	13,118	12,322	17,365	22,239	25,440	39,604		14,164
Total	2,30,327	2,11,689	1,82,434	1,63,776	4,42,016	3,46,210	1,48,793	52,987
Net increase					95,806		95,806	

HORACE BELL,  
Manager.

A. W. U. POPE,  
Traffic Superintendent.

## GENERAL REMARKS AND EXPLANATIONS.

THE total quantity of goods carried during the month of November 1884 aggregated maunds 4,42,016, as compared with the maund 3,46,210 carried during the corresponding period of 1883, and maunds 3,16,493 carried during the previous month, showing an increase of maunds 95,806 in one case and 1,25,523 in the other.

Of the several increases and decreases the following are the most prominent ones and worthy of separate explanations:—

## INCREASES.

	Mds.
Coal and coke	3,716
This is due to the establishment of a coal agency by Messrs. Stevens McNaughten & Co.	
Piece-goods	8,140
This fluctuates according to Hindu festivals and also according to the pecuniary prosperity of the district.	
Indigo	9,203
This is being despatched earlier this year than last.	
Food-grains	49,519
Due to threatened scarcity and failure of crops.	
Iron	3,475
Due to despatch of scrap iron to Burrakur from the Somastipore stores.	
Ghee	2,428
This is worthy of notice and would be much larger if we could see our way to making special wagons, &c., for its transport.	
Salt	16,757
Due to reduction in East Indian Railway rates which drew the traffic to the Railway.	
Seeds	28,516
The rivers were low so the Railway had to be used. Also the failure of castor-oil seed crop elsewhere necessitated East Indian Railway making large purchases in Tirhoot for the Manauri Oil Factory.	
Timber	13,276
Messrs. Dear & Co. have a large depôt at Somastipore for this traffic, and it fluctuates according to the number of contracts they obtain for timbers wrought and unwrought.	

## DECREASES.

	Mds.
Lime and kunkur	10,118
This is due to small demands by the Road Cess and Darbhanga Raj. and depends entirely on such engineering projects.	
Railway materials	20,636
Due to the completion of the Eastern, Western and Hajipore extensions.	
Saltpetre	5,937
The price at Calcutta is low, and no demand exists in the market.	
Tobacco	2,132
The year's crops have been very poor.	

HORACE BELL,  
Manager.

A. W. U. POPE,  
Traffic Superintendent.



## Weekly Return of Traffic Receipts on Indian Railways.

## EAST INDIAN RAILWAY.

Approximate Return of Traffic for week ended 13th December 1884 on 1,509½ miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. s.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	181,381	2,33,818 10 0	21,61,434 20	6,07,675 1 6	17,416 8 0	8,58,910 3 6	65,001	94,853	159,854
Or per mile of railway ...	.....	154 14 5	.....	402 9 1	11 8 7	569 0 1	.....	.....	.....
For previous 23 weeks of half-year ...	4,603,852	54,25,136 3 4	4,29,99,199 0	1,65,85,522 1 9	2,76,629 5 11	1,62,90,357 11 0	1,426,185½	1,962,116½	3,388,302
Total for 24 weeks ...	4,785,233	56,58,954 13 4	4,51,60,633 20	1,11,93,197 3 3	2,97,115 13 11	1,71,49,267 14 6	1,491,186½	2,056,969½	3,548,156
COMPARISON.									
Total for corresponding week of previous year ...	192,199½	2,56,604 9 0	23,72,922 30	7,38,093 3 9	19,385 13 0	10,14,083 0 9	65,656	127,643	193,299
Per mile of railway corresponding week of previous year ...	.....	170 0 10	.....	489 2 0	12 13 7	673 0 5	.....	.....	.....
Total to corresponding date of previous year ...	4,707,605½	55,35,518 4 2	5,72,47,081 0	1,51,69,993 14 10	3,52,028 15 5	2,10,47,541 2 5	1,523,807	3,013,946	4,537,753

Approximate Statement of gross receipts of the East Indian Railway, prepared in accordance with Public Works Department Circular No. XXI, Railway, dated 23rd July 1883.

RECEIPTS FOR WEEK ENDING 15TH DECEMBER 1883.			RECEIPTS FOR WEEK ENDING 13TH DECEMBER 1884.			TOTAL RECEIPTS FROM 1ST APRIL 1883 TO 15TH DECEMBER 1883.			TOTAL RECEIPTS FROM 1ST APRIL 1884 TO 13TH DECEMBER 1884.			Total increase in 1884.	Total decrease in 1884.
Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked.		
	Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.	Rs.	Rs.
1,509	10,14,084	672	1,509½	8,58,910	569	1,509	3,51,62,141	23,302	1,509½	2,87,76,836	19,064	.....	63,85,305

## EASTERN BENGAL STATE RAILWAY.

Approximate Return of Traffic for week ended 6th December 1884, on 359 miles open, including Calcutta and South-Eastern and Bengal Central Railway mileage.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated), including steam-boat.	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. s.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
A.—Total traffic for the week ...	106,202	39,602 0 0	3,52,117 0	71,795 0 0	969 0 0	1,21,365 0 0	15,661	10,681	26,342
Or per mile of railway ...	296	110 0 0	981 0	209 0 0	.....	310 0 0	.....	.....	.....
For previous 22 weeks of half-year ...	1,842,826	7,43,632 0 0	73,01,661 0	17,60,879 0 0	1,80,537 0 0	26,38,768 0 0	591,377	242,794	834,171
Total for 23 weeks ...	1,949,028	7,83,234 0 0	76,53,778 0	17,78,874 0 0	1,96,526 0 0	27,65,134 0 0	597,033	253,475	850,513
COMPARISON.									
B.—Total for corresponding week of previous year ...	69,578	34,321 0 0	2,22,578 0	45,399 0 0	8,419 0 0	89,139 0 0	9,820	7,298	17,118
Per mile of railway corresponding period of previous year ...	265	130 0 0	846 0	173 0 0	.....	303 0 0	.....	.....	.....
Total to corresponding date of previous year ...	1,754,298	8,17,680 0 0	63,82,739 0	13,54,670 0 0	2,32,983 0 0	24,04,733 0 0	223,594	186,251	411,755

A.—Includes receipts of Calcutta and South-Eastern Railway, and 50 per cent. of receipts of Bengal Central Railway, viz., Rs. 5,188 and Rs. 4,124 respectively apportioned over the several heads of traffic.

B.—Includes share of Bengal Central Railway receipts due to Eastern Bengal State Railway for working, viz. Rs. 872, and Calcutta and South-Eastern receipts Rs. 4,197.

## FINANCIAL YEAR.

Approximate Statement of gross receipts of the Eastern Bengal State Railway.

RECEIPTS FOR WEEK ENDING 5TH DECEMBER 1883.			RECEIPTS FOR WEEK ENDING 6TH DECEMBER 1884.			TOTAL RECEIPTS FROM 1ST APRIL 1883 TO 5TH DECEMBER 1883.			TOTAL RECEIPTS FROM 1ST APRIL 1884 TO 6TH DECEMBER 1884.			Total increase in 1884.	Total decrease in 1884.
Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked.		
	Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.	Rs.	Rs.
265	88,139	335½	359*	1,21,966	838	243	36,31,319	14,944	237	37,95,570	11,262	1,04,251	.....

\* Increase in mileage.

	Miles.
Eastern Bengal State Railway	5
Bengal Central Railway	91
Total	96

## BENGAL CENTRAL RAILWAY.

Approximate Return of Traffic for week ended 6th December 1884 on 126 Miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. s.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	18,038	6,838 0 0	14,187 0	1,379 0 0	32 0 0	8,249 0 0	3,811	1,056	5,067
Or per mile of railway ...	143	54 0 0	113 0	11 0 0	.....	65 0 0	.....	.....	.....
For previous 23 weeks of half-year ...	389,420	1,56,444 0 0	2,39,527 0	22,062 0 0	1,037 0 0	1,79,543 0 0	71,423	23,627	95,050
Total for 23 weeks ...	407,458	1,63,282 0 0	2,53,714 0	23,441 0 0	1,069 0 0	1,87,792 0 0	75,234	24,883	1,00,117
COMPARISON.									
Total for corresponding week of previous year ...	9,731	1,551 0 0	4,324 0	161 0 0	33 0 0	1,745 0 0	907	301	1,208
Per mile of railway corresponding period of previous year ...	278	44 0 0	124 0	5 0 0	1 0 0	50 0 0	.....	.....	.....
Total to corresponding date of previous year ...	227,094	40,235 0 0	3,11,618 0	8,256 0 0	559 0 0	49,059 0 0	20,806	7,050	27,856

## FINANCIAL YEAR.

Approximate Statement of Gross Receipts of the Bengal Central Railway.

RECEIPTS FOR WEEK ENDING 5TH DECEMBER 1883.			RECEIPTS FOR WEEK ENDING 6TH DECEMBER 1884.			TOTAL RECEIPTS FROM 1ST APRIL 1883 TO 5TH DECEMBER 1883.			TOTAL RECEIPTS FROM 1ST APRIL 1884 TO 6TH DECEMBER 1884.			Total increase in 1884.	Total decrease in 1884.
Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked.		
	Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.	Rs.	Rs.
35	1,745	50	126	8,249	65	35	77,790	2,223	125	3,24,350	2,595	2,46,500	.....

## PATNA AND GYA STATE RAILWAY.

Approximate Return of Traffic for week ended 13th December 1884 on 57½ miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. s.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	9,582	5,671 10 0	46,418 20	2,799 0 0	58 9 0	8,529 12 0	1,807	751	2,558
Or per mile of railway ...	168	99 2 6	811 20	48 15 1	1 0 4	149 1 11	.....	.....	.....
For previous 23 weeks of half-year ...	311,387*	1,79,752 5 11*	10,25,014 0	70,705 9 0*	1,807 0 6*	2,52,354 15 5	39,922½	23,456½	63,379
Total for 24 weeks ...	320,969	1,85,423 15 11	10,71,432 20	73,505 2 0	1,955 9 6	2,60,884 11 5	41,729½	23,207½	64,937
COMPARISON.									
Total for corresponding week of previous year ...	13,830½	6,849 13 4	33,457 0	2,507 9 0	64 8 0	9,421 14 4	1,834	685	2,519
Per mile of railway corresponding week of previous year ...	242	119 12 0	585 0	43 13 5	1 2 1	164 11 6	.....	.....	.....
Total to corresponding date of previous year ...	269,446½	1,41,122 14 10	8,27,222 10	57,905 12 0	1,721 9 0	2,00,751 3 10	43,842	16,723	60,565

\* Added number of passengers 49, Rs. 30-15-11 to Coaching, and deducted Rs. 36 from Merchandise, and Rs. 183-15 from other earnings on account of the Supplemental Returns to quarter ended 30th September 1884.

Approximate Statement of gross receipts of the Patna and Gya State Railway, prepared in accordance with Public Works Department Circular No. XXI, Railway, dated 23rd July 1883.

RECEIPTS FOR WEEK ENDING 15TH DECEMBER 1883.			RECEIPTS FOR WEEK ENDING 13TH DECEMBER 1884.			TOTAL RECEIPTS FROM 1ST APRIL 1883 TO 15TH DECEMBER 1883.			TOTAL RECEIPTS FROM 1ST APRIL 1884 TO 13TH DECEMBER 1884.			Total increase in 1884.	Total decrease in 1884.
Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked.		
	Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.	Rs.	Rs.
57½	9,422	165	57½	8,530	149	57½	3,20,475	5,603	57½	3,74,381	6,545	53,906	.....



GHAZIPUR-DILDARNAGAR STATE RAILWAY.

Approximate Return of Traffic for week ended 13th December 1884, on 12 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. S.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
...	1,835	327 6 0	23,852 10	701 0 0	26 5 0	1,054 11 0	186	143	329
...	...	27 4 0	...	58 6 8	2 3 1	87 14 3	...	...	...
half-	48,193*	8,772 14 6*	2,39,175 0*	5,648 11 0*	613 10 6*	15,035 4 0	4,948½	2,826½	7,775
...	50,028	9,100 4 6	2,63,027 10	6,349 11 0	639 15 6	16,089 15 0	5,134½	2,900½	8,104
...	...	...	...	...	...	...	...	...	...
week of	2,322	417 12 10	31,439 10	787 6 0	23 3 0	1,228 5 10	118	211	329
...	...	34 13 1	...	65 9 10	1 14 11	102 5 10	...	...	...
late of	61,079	8,989 14 9	3,10,392 20	7,294 8 0	643 11 0	16,928 1 9	4,991	2,977	7,968

\* Added number of passengers 2, Rs. 1-8-6 to Coaching, and deducted Mds. 6-10 and Rs. 0-1-0 from Merchandise, and Rs. 4 from other earnings, on account of a to quarter ended 30th September 1884.

Statement of gross receipts of the Ghazipur-Dildarnagar State Railway, prepared in accordance with Public Works Department Circular No. XXI, Railway, dated 23rd July 1883.

ENDING 1883.	RECEIPTS FOR WEEK ENDING 13TH DECEMBER 1884.				TOTAL RECEIPTS FROM 1ST APRIL 1883 TO 15TH DECEMBER 1883.				TOTAL RECEIPTS FROM 1ST APRIL 1884 TO 15TH DECEMBER 1884.				Total increase in 1884.	Total decrease in 1884.
	Per mile worked.	Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked.	Mean mileage worked.	Total receipts.		
	Rs.	Rs.	Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.	Rs.
12	1,228	102	12	1,055	88	12	32,460	2,705	12	34,023	2,835	1,563	...	...

SINDIA STATE RAILWAY.

Approximate Return of Traffic for week ended 13th December 1884 on 74½ miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. S.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week	3,769	3,717 1 0	62,748 0	4,584 13 0	119 6 0	8,421 4 0	731	1,315	2,046
Or per mile of railway	...	49 14 3	...	61 8 8	1 9 8	113 0 7	...	...	...
For previous 25 weeks of half-year	*90,692½	*81,744 13 1	11,37,945 20	*55,324 9 3	*2,658 8 2	1,39,727 14 6	14,795	22,061	36,856
Total for 24 weeks	103,461½	85,461 14 1	12,00,293 20	59,909 6 3	2,777 14 2	1,48,140 2 6	15,526	23,376	38,902
COMPARISON.									
Total for corresponding week of previous year	4,326	3,688 5 8	54,172 0	2,977 3 0	116 4 0	6,781 12 8	439	1,083	1,472
Per mile of railway corresponding week of previous year	...	49 8 1	...	39 15 5	1 9 0	91 0 6	...	...	...
Total to corresponding date of previous year	106,413	85,226 5 4	8,61,053 20	58,457 7 0	2,847 0 0	1,46,530 12 4	*14,708	21,495	36,203

\* Added number of passengers 49½, Rs. 90-8-1 to Coaching, Rs. 31-9-0 to Merchandise, and Rs. 207-4-5 to other earnings, on account of the Supplemental Returns to quarter ended 30th September 1884.

Approximate Statement of gross receipts of the Sindia State Railway, prepared in accordance with Public Works Department Circular No. XXI, Railway, dated 23rd July 1883.

RECEIPTS FOR WEEK ENDING 15TH DECEMBER 1883.			RECEIPTS FOR WEEK ENDING 13TH DECEMBER 1884.			TOTAL RECEIPTS FROM 1ST APRIL 1883 TO 15TH DECEMBER 1883.			TOTAL RECEIPTS FROM 1ST APRIL 1884 TO 15TH DECEMBER 1884.			Total increase in 1884.	Total decrease in 1884.
Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked.		
	Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.	Rs.	Rs.
74½	0,782	91	74½	8,421	113	74½	2,31,152	3,103	74½	2,36,486	3,309	15,334	...

## BENGAL PROVINCIAL RAILWAYS.

## Weekly Statement of Traffic Receipts.

Latest return received.	Name of Railway.	Length open.	RECEIPTS FOR WEEK ENDING		TOTAL RECEIPTS FROM 1ST JANUARY		Total increase in 1884.	Total decrease in 1884.
			27th October 1883.	25th October 1884.	To 27th October 1883.	To 25th October 1884.		
1884.		Miles.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
25th October ...	Northern Bengal ...	249	59,514 0 0	49,720 0 0	18,28,446 0 0	16,55,715 0 0	.....	1,72,731 0
1st November ...	Tirhoot ...	226	14,318 0 0	18,327 0 0	6,93,753 0 0	9,56,034 0 0	2,62,281 0 0	.....
15th do. ...	Nalhati ...	27½	1,622 0 0	1,421 0 0	69,414 0 0	64,721 0 0	.....	4,693 0 0
	Total ...	502½	155,454 0 0	69,468 0 0	25,01,613 0 0	26,76,470 0 0	84,857 0 0	.....

## DARJEELING-HIMALAYAN RAILWAY COMPANY, LIMITED.

	Rs. A. P.
Earnings for week ending 6th December 1884	8,006 0 0
Corresponding week last year	8,415 0 0
Decrease	409 0 0
Receipts from 1st July to 6th December 1884	1,95,274 5 2
„ from 1st July to 8th December 1883	1,93,494 13 7
Increase	1,779 7 7
Miles open week ending 6th December 1884	50
Corresponding week last year	50
Receipts per mile open week ending 6th December 1884	160 1 11
Corresponding week last year	163 4 10
Decrease	8 2 11

DARJEELING, the 13th December 1884.

W. STEVENSON, Secretary.





# SUPPLEMENT TO The Calcutta Gazette.

WEDNESDAY, DECEMBER 31, 1884.

## OFFICIAL PAPERS.

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### Proceedings of the Council of the Lieutenant-Governor of Bengal for the purpose of making Laws and Regulations.

*Saturday, 20th December 1884.*

Present :

HIS HONOR THE LIEUTENANT-GOVERNOR OF BENGAL, *President*.  
 The HON. H. J. REYNOLDS.  
 The HON. A. PHILLIPS, *Acting Advocate-General*.  
 The HON. C. P. L. MACAULAY.  
 The HON. A. P. MACDONNELL.  
 Colonel the HON. S. T. TREVOR, R.E.  
 The HON. C. B. GARRETT.  
 The HON. MOULVIE ABDUL JUEBAR.  
 The HON. CHUNDER MADHUB GHOSE.  
 The HON. A. B. MILLER.  
 The HON. KUMAR BOYKANTONATH DE.  
 The HON. RAI JOY PROKASH LALL BAHADOOR ; and  
 The HON. G. IRVING.

### REGISTRATION OF PERMANENT TENURES.

The HON. MR. REYNOLDS introduced the Bill to provide for the registration of permanent tenures, and moved that it be read in Council. He said :—The explanation which I gave last Saturday of the scope and objects of this Bill

seems to render it unnecessary that I should do more on the present occasion than invite the attention of the Council to the Bill which has been circulated to Hon. Members, and ask them to compare its provisions with the statement I made on that occasion. The Bill, after a few preliminary sections, which are taken up with the necessary definitions, is divided into three Chapters. The first Chapter relates to the procedure to be adopted in places in which registration is optional. It provides that application may be made for the registration of tenures either by proprietors of land or tenure-holders, and that it should be made to the Subordinate Judge; and then it makes provision for due notice to be given to all persons concerned to file any objections which they may wish to put forward; it provides also for summary decision in cases which admit of their being summarily decided, and for the framing of issues for regular decision on such points as are in dispute, and cannot be settled in any other way. The second Chapter prescribes the nature of the registers to be kept by the Collector, and this Chapter applies to registration, both in cases in which registration is optional, and also in local areas in which registration may possibly be made compulsory. The Chapter, as I said, provides for the nature of the registers to be kept up, and it also contains provisions for what is to be done to carry out the mutation of names, in cases of transfer and succession. And with regard to this provision I wish to invite the attention of Hon. Members to sections 25 to 30 of the Bill, and to point out that those sections provide, in the case of the mutation of names, for just as much facility and opportunities being given for putting forward and the hearing of objections, as in original cases of applications for the registration of the tenure itself. From what has passed in another place, I understand that some landlords have felt apprehensions that, under the cover of the mutation of names, claims and documents may be put forward transferring tenures and containing stipulations and conditions which the zemindars might not be inclined to acknowledge, but which nevertheless, unless they objected to them in time, they might be considered to have acquiesced in. These sections therefore provide that, in the case of mutation of names, full opportunity shall be afforded for objections to be made and decided. Then Chapter III provides for the procedure in local areas in which the Local Government may declare that registration shall be compulsory, and these provisions are mainly based on what I may call the corresponding sections of the Bengal Land Registration Act (VII of 1876). The Government is disposed to attach much importance to this measure as a necessary complement to the provisions of the Bengal Tenancy Bill. If, indeed, we possessed in the Lower Provinces a complete record of rights, such as has been framed in other parts of Northern India, it might not be necessary to legislate specially for the registration of one class of tenancies. Possibly some of the present generation may survive to see the day when we shall have in every village and estate of Bengal a record of the rights and interests of every class of the agricultural population, from the zemindar down to the humblest tenant. But that time, though it may one day come, is certainly still very distant. The work will be one of great labour and expense, and the agency for establishing and maintaining the record has still to be created. In the meantime this Bill will in some measure supply, for one numerous and important class of tenancies, what I hope may eventually be attained for all. The registration of permanent tenures will afford much valuable information regarding the economic conditions of the country, the different gradations of landlords, and the extent to which sub-infeudation has been carried; it will facilitate the settlement of many disputed questions; and it will enable the Government to afford substantial assistance to proprietors in the recovery of their rents.

The HON. JOY PROKASH LALL said:—I beg with the permission of the President to make a few observations on that section of the Bill which contains a definition of “permanent tenure.” Your Honor must be aware that there are in Behar occupancy rights which are heritable and by custom transferable. Then there is the *guzashta* tenure, which is heritable and also transferable, but liable to enhancement of rent. These rights are not yet recognized by law; the people of Behar would therefore wish to know whether this Bill will treat such tenure-holders as *mokarnadars* and *muafidars*, and the like. But if the Bill goes further than that, and the tenures to be affected are not well defined, great



litigation and expense will follow, and both the Government as well as the people will be affected. I have nothing further to urge, except to repeat that the nature of the tenures in Bengal and Orissa are different from those in Behar.

The HON. MR. REYNOLDS said in reply:—I understand the Hon. Member not so much to object to the provisions of the Bill, as to complain that some of the definitions contained in it are not sufficiently clear and precise. With regard to what he said on the question of *guzashta* tenures, I would ask him to refer to the definition of "tenure" which has been drafted in accordance with the Land Registration Act of 1876, as including every interest in land, except estates and the interests of raiyats or under-raiyats. Now, as I understand, these *guzashta* tenants are admitted to be raiyats, although raiyats having rights and privileges, such as fixity of tenure and perhaps also fixity of rent; but I never understood that it was claimed for them that they possessed any other rights than those of raiyats. In that case it is clear that they will not come under the definition of the Bill at all. But there are holders of other tenures to which I understand the Hon. Member to refer, such as *mokuraidars* and *muafidars*, which do come under the definition. Tenures, such as *ijaras*, which are not of a permanent nature, do not come under it.

HIS HONOR THE PRESIDENT said:—I understand the Hon. Member to say that his objections rather refer to the circumstances and condition of things in Behar, as being different from those in Bengal, and that possibly, unless those circumstances and conditions are borne in mind, there might be a difficulty as regards the particular definition of "tenure" in this Bill. The Hon. Member also referred to certain special tenures in Behar, but from the difficulty I experienced in hearing what he said, I am not in a position to discuss the question. As, however, the name of the Hon. Member is proposed to be placed on the Select Committee to which the Bill will be referred, no doubt the objections which he suggests will be fully considered in Committee.

The motion was then put and agreed to, and the Bill referred to a Select Committee consisting of the Hon. Mr. MacDonnell, the Hon. Mr. Garrett, the Hon. Moulvie Abdul Jubbar, the Hon. Joy Prokash Lall, and the Mover.

#### INSPECTION OF PRIME-MOVERS.

The HON. MR. REYNOLDS moved for leave to introduce a Bill to amend Bengal Act III of 1879. He said: This Act of 1879 is an Act for the Inspection of Steam-boilers and Prime-movers, and extends to the town and suburbs of Calcutta and the town of Howrah. It does not apply to locomotive steam-engines or to steam-vessels. The Act provides that no boiler or prime-mover shall be used without a certificate granted under the Act, and in force at the time being; and it further provides for the appointment of Inspectors who, under section 5, are required carefully to examine boilers and prime-movers in every part thereof, and it requires the owner to afford all reasonable facilities for such examination, and all such information as may reasonably be required. But in point of fact, I understand that this provision of the law is not literally carried out; the inspection is practically limited to boilers and does not extend to prime-movers. The Boiler Commissioners some time ago brought the matter to the notice of the Government, and pointed out that the Act is not complied with, and that to carry out its provisions will cause very serious difficulty and inconvenience. They explain that, when a boiler has to be inspected, it can very easily be cooled down, and the examination and inspection can be made without interfering with the course of business in general, and the working of the mill or other factory. But this is not the case if the prime-mover has to be examined. The examination of the prime-mover, if it is to be anything more than a mere examination only in name, if it is to be such an examination as is referred to in section 5, will involve the stoppage of work, and will also possibly involve the taking of the engine to pieces, or at any rate the dismantling of it to a certain extent; and that will be a serious inconvenience, not only to mill-owners and persons of that kind, but to the community in general. They point out that this provision of the law will apply also to the engines and pumps used in the water-supply of Calcutta, and that if the examination of the prime-movers attached to them is to be made, the Public may some day find themselves

without water; and they add that there is really no great necessity for a minute examination of prime-movers, and that if an accident happened to prime-movers it would not have anything like the same disastrous effect as the explosion of a boiler. They further state that the prime-movers are in charge of qualified Engineers who thoroughly understand every part of the machinery, and have every inducement in their own interests and reputation to see that their engines are really in good order. The Boiler Commissioners recommend that rules should be laid down for putting engines and boilers in charge of qualified persons, and that certificates of competency should be given to such persons by some authority recognized by Government. These opinions of the Boiler Commissioners were referred for the special opinion of various bodies of mill-owners and of the Chamber of Commerce, and the opinion of those bodies was unanimous—*first*, that there was no real necessity for the examination of prime-movers; and *secondly*, that such examination would cause very serious inconvenience and expense to the persons concerned. I had occasion, in connection with this subject, to look at the provisions of the corresponding Acts of the other Presidencies, and I found that the wording of the Bombay Act is very much the same as the wording of our own Act, and I understand that this difficulty has not been felt in Bombay; but whether the examination in such detail as is required by our law is there carried out or not, I am not in a position to say. The Act of 1882, which was passed for British Burma, is of a very different character. It requires prime-movers to be examined just in the same way as the Bengal Act does, but it also provides for the granting of certificates of competency to the Engineer in charge, and declares that the certificate of the Engineer as to the condition of the engine shall be accepted when granted on such authority. The actual recommendation of the Boiler Commissioners is that the Act shall be modified by omitting the words "prime-mover" in those sections of the Act where it occurs. I think it may perhaps be a further question whether it will not be well to adopt the same system as in British Burma, and to retain power for the inspection of prime-movers, and at the same time give a certificate of competency to the Engineer in charge. That, however, is a matter which may be considered hereafter. The motion being now merely for leave to bring in a Bill, it involves only the recognition by the Council of the necessity for some legislation on this subject.

The motion was put and agreed to.

#### KIDDERPORE DOCKS.

The HON. MR. REYNOLDS moved for leave to introduce a Bill to enable the Commissioners for making Improvements in the Port of Calcutta to provide docks in the Port. He said:—I believe it is unnecessary to detain the Council with any lengthy history of the circumstances which have led to the proposal for the introduction of this Bill. Some of those present may remember the state of Calcutta before 1870, when the present Port Trust was established. At that time it is hardly too much to say that there were no jetties, no wharves, and no appliances for the landing and shipping of goods; but since the constitution of the present Port Trust in 1870 very great progress has been made. There are now eight jetties supplied with export and import warehouses, and having a large number of hydraulic cranes and steam cranes, and there is also a floating steam crane capable of lifting 30 tons. There is also a continuous line of wharves along the foreshore, and a tramway that connects the jetties with the Eastern Bengal Railway; and while giving all these advantages, the Port Commissioners have been able entirely to abolish port dues in Calcutta, and to effect a substantial reduction in the cost of pilotage, and at the same time to maintain the survey, buoyage, and lighting of the river in a more efficient state than has ever been done before. But with all their efforts, the Port Commissioners are unable to keep up with the growing requirements of the traffic. The eight jetties which have been provided afford accommodation to about 200 vessels in the year, but we require space for about five or six times that number. The gross tonnage of the Port has increased during the last five years in round numbers from about  $1\frac{1}{2}$  millions to 2 millions of tons; the exports have increased from  $1\frac{1}{4}$  millions to  $1\frac{3}{4}$  million tons; and the annual downward traffic of the East Indian Railway, which was under half a million tons during the five years ending with 1875, during the next period of five years reached nearly a million



tons, and at present, perhaps, if it has not actually reached it, must be near upon 1½ million tons. The further extensions of the railway system, some of which have already been constructed, some of which are in progress, and some of which still remain to be undertaken, will all tend to the same result—the result of pouring into Calcutta a daily increasing mass of goods, for the handling and transport of which new and extended appliances will be necessary. These considerations led the Government in 1882 to appoint a Committee to report on the advisability of constructing docks at Diamond Harbour to relieve the trade of the Port. The majority of that Committee reported in favour of the construction of docks at Diamond Harbour, but the mercantile members of the Committee opposed the scheme on the ground of the inconvenience that would arise to the ordinary course of business, owing to the distance of the docks some 35 or 40 miles from Calcutta. It appeared that those objections were felt, not only by the mercantile members of the Committee, but were also endorsed by the Chamber of Commerce and the mercantile community in general. The Government therefore resolved not to act on the recommendations of the majority of the Diamond Harbour Docks Committee, and in 1883 a fresh Committee—a joint Committee of the Port Commissioners and of the Chamber of Commerce—was appointed to consider the general question of extending and strengthening the accommodation for the shipping in Calcutta. That Committee submitted a very admirable and exhaustive report, in which they reviewed all the circumstances of the case. The first point which they considered was, whether it is desirable to extend accommodation by adding to the number of jetties, or by constructing docks, and for reasons set forth in their report, one of which is the greater protection afforded by docks against cyclones, they considered docks in every way preferable to adding to the number of jetties. Then there was the question where the docks should be constructed, and various sites were considered, and the conclusion of the Committee was that Kidderpore is the most favourable site for the proposed docks. The report of the Committee was submitted to several experts, both in England and this country; it was approved by the Government of Bengal, recommended by the Government of India, and has been sanctioned in all essential particulars by the Secretary of State. It having been determined then that docks should be constructed at Kidderpore, the question arose, what official or body of officers should be entrusted with the construction and management of the docks? and the Government had the choice of several alternatives; they might have kept the docks under the Marine Department of the Government itself, or they might have created a new body of Dock Trustees, or they might have entrusted the construction and management of the docks to the existing Port Commissioners. The decision the Government came to was, that the Port Commissioners should be entrusted with the duty, and perhaps I may be permitted to say, although a Port Commissioner myself, that this was determined upon owing to the confidence which the management of the present Trust by the Port Commissioners has excited both in the Government and the mercantile community in general, but it was also almost a necessary conclusion in consequence of the intimate connection between the existing works of the Port Commissioners and their proposed extension by the construction of new docks. The new docks and the present jetties are intended to be connected by a tramway, and the whole will be worked as one concern by the Port Trust. Then a further difficulty arose, viz. that the Government were advised that the Port Commissioners, under the existing law, had no power to construct docks. The hon. and learned Advocate-General (Mr. Paul) came to the conclusion that the construction of docks was clearly outside the provisions of Act V of 1870, and as the Port Commissioners are unable to construct docks, it is clearly out of their power to raise a loan for the purpose. It was therefore considered necessary to introduce a Bill to enable the Port Commissioners to construct docks and raise a loan for that purpose. The proposed Bill has been circulated, and is in the hands of Hon. Members, and I will just point out that it is nothing more than an enabling measure; it enables the Commissioners to construct and maintain docks, to raise a loan for the purpose, and to levy tolls and charges which have been approved by the Local Government and published in the *Calcutta Gazette*. And with regard to the form which

the measure has assumed, I may explain that it was intended at first to introduce a consolidating Act bringing together all the various provisions of law relating to the Port Commissioners into one enactment; and that, no doubt, is a work which must be undertaken before long. Act V of 1870 has already four amending Acts, and it is very desirable to consolidate them; but such a consolidation of the law would involve a great deal of delay. It is therefore now proposed only to pass a short enabling measure to provide for the present difficulty.

As a summary of the whole question, I believe I cannot do better than read to the Council, if it will permit me to do so, the concluding words of the despatch in which the Government of India recommend the adoption of this scheme to the Secretary of State. They said:—

“In conclusion, we would observe that the pressing need of improved facilities for the increasing trade of Calcutta cannot be too strongly insisted upon. The trade is rapidly expanding, and there is probably no public work on this side of India at the time which can be said to be as important as the Calcutta Port Improvements. The construction of docks will undoubtedly give great facilities, now wanting, to Calcutta merchants in the prosecution of their business, the process of loading and unloading cargoes will be considerably expedited, goods will be better and more conveniently warehoused, and the sorting and cleaning of the wheat before shipment will be promoted; while the general concentration of business will be a welcome relief to those concerned with trade and shipping. The measure now proposed is formally supported by an absolute consensus of official and non-official opinion, and has the entire approval of the local commercial Public. We trust, therefore, that we may be favoured with sanction to its being undertaken at the earliest practicable date.”

These are the grounds on which the Government of India recommended the adoption of this scheme, and it is on these grounds that I now ask the Council to grant leave for the introduction of the proposed Bill.

The motion was put and agreed to.

HIS HONOR THE PRESIDENT said:—I think it necessary to explain that it is desirable that the form in which the Bill has been drawn up should be considered both by the Local Government and also by the Government of India; therefore, before we proceed to the next motion on the paper to introduce the Bill, we should submit the papers on the subject, and the Bill which has been drafted, for the consideration of the Government of India. I hope their approval of the form in which the Bill has been prepared will be received in time to enable us to proceed with the Bill at the next meeting of the Council. Therefore the two remaining motions in the name of the HON. MR. REYNOLDS will be postponed to the next meeting.

The Council was adjourned to Saturday, the 3rd January 1885.



LIBERALITY OF THE MOHARANI SURNOMOYEE OF COSSIMBAZAR,  
MOORSHEDEABAD.

GENERAL DEPARTMENT—EDUCATION.

*Calcutta, the 30th December 1884.*

RESOLUTION.

READ—

A letter from the Commissioner of the Presidency Division, No. 15Ct.—ME, dated the 21st November 1884, forwarding a copy of a letter from the Maharani Surnomoyee, of Cossimbazar in Moorsshedabad, placing at the disposal of Government Rs. 1,50,000 for the purpose of promoting female medical education in Bengal.

Read again—

Letter to the Director of Public Instruction, No. 418T—G, dated 29th June 1883, declaring females fully admissible to the classes of the Calcutta Medical College.

Resolution, dated 6th May 1884, establishing four "Female Medical Scholarships" tenable for five years in the Calcutta Medical College.

THE problem of creating a class of qualified female medical practitioners to attend upon native women in their sickness is one which presents many special difficulties in a country where the habits and traditions of the women of the upper classes prevent them from availing themselves of the services of men as their medical advisers. Attempts have been made from time to time to supply what has always been felt to be a pressing want, but the efforts of Government in this direction have until lately been impeded, partly by the difficulty of introducing a serious innovation into the conservative domain of medical practice, and partly by the inadequacy of the funds which could be appropriated to the furtherance of so large an object. In the letter of 29th June 1883, cited in the preamble to this Resolution, Mr. Rivers Thompson reviewed at length the various objections raised on professional grounds to the admission of women to the classes of the Calcutta Medical College, and gave expression to his final decision, that on grounds of both principle and expediency the exclusion of women could no longer be maintained. In the Resolution of the 6th May 1884 he endeavoured to give fuller effect to this policy by offering special encouragement in the form of scholarships to ladies who, after passing the First Arts Examination at the University, should elect to enter the Calcutta Medical College as students. This was as large a measure of encouragement as the Provincial finances would admit of, and up to the present time the Lieutenant-Governor has had little hope of being able to offer further support to a movement which commands his hearty sympathy. The Maharani Surnomoyee, Lady of the Order of the Crown of India, whose good name in the cause of public charities and private benevolence is already known throughout India, has now come forward to supplement the resources of the State with the munificent donation of Rs. 1,50,000 which she has placed at the disposal of the Bengal Government for the promotion of female medical education. In the letter communicating her gracious intentions, the Maharani imposes no restriction upon the mode in which her gift should be administered; but it is understood that she would be gratified if the money could be expended on the construction of a hostel for native ladies studying medicine in Calcutta. The Lieutenant-Governor agrees with the Maharani in thinking that an institution of this kind will materially forward the cause of female medical education in Bengal. The difficulties experienced by young men in pursuing their education in large towns have already led to the establishment of hostels for their accommodation. These difficulties are of course greatly increased in the case of ladies, some of whom may come from distant homes; and the proposed institution may help to open a useful career to many women who otherwise would have no opportunity at all of instruction in medical science. The Lieutenant-Governor has much pleasure therefore in accepting the very liberal offer of the Maharani, who has thus

increased the large claim to public gratitude which she has already so signally established, and added one more to the many past recognitions by this Government of her acts of beneficence to the people of Bengal.

Measures will at once be taken to acquire the land selected for the site of the hostel, which will be called after the name of the noble donor. The Government Architect will be directed to prepare a design and estimate of the cost of the building.

By order of the Lieutenant-Governor of Bengal,

A. P. MacDONNELL,

*Secretary to the Govt. of Bengal.*

No. 15Ct.—M E., dated Camp Burwa (Moorshedabad), the 21st November 1884.

From—A. SMITH, Esq., Commissioner of the Presidency Division,

To—The Secretary to the Government of Bengal, General Department.

I HAVE the honour to forward, for the information and orders of the Lieutenant-Governor, a copy of a letter No. 385, dated 12th instant, from the Maharanee Surnomoye of Cassimbazar in Moorshedabad. She places at the disposal of the Government the sum of one and a half lakhs of rupees for the purpose of assisting towards the provision of properly educated female medical practitioners for the treatment of persons of her own sex. The Maharanee's munificent offer should, I think, be accepted and suitably acknowledged, and I am sure that the Government will gladly give such further aid as may be needed to carry out her proposals.

No. 385, dated Cassimbazar Rajbari, the 12th November 1884.

From—MAHARANEE SURNOMOYEE, Member of the Imperial Order of the Crown of India, Cassimbazar,

To—The Magistrate and Collector of Moorshedabad.

THE want of properly educated female medical practitioners for the treatment of persons of my sex has been felt by me for a long time, and gradually with the advance of my age, a deep impression has been made in my mind. I had always hoped and expected that some kind-hearted and noble-minded person would do something for the removal of the sad want, but I regret to observe that this hope has not yet been realized. Consequently, I have now made up my mind to do what little I can to lay the foundation, as it were, of a work which might be completed in the hands of far abler and more competent persons.

2. I had thought of establishing an institution in this district of Moorshedabad for imparting medical education to the females through the medium of the Bengalee and the English languages. But, as at present advised, I have been convinced that an institution of the kind is not likely to be a success here, whereas one, if located in Calcutta and incorporated with the Medical College there, is sure to succeed and realize my long-cherished hopes. An institution of that sort, however, is likely to require a fund which, having regard to my finances and present state of affairs, I regret to say I do not feel myself justified in endowing in full.

3. Under the circumstances, I have thought it proper to place, at the disposal of our noble and benevolent Government, the sum of rupees one lakh and fifty thousand, in order that it may be pleased to accept the amount and supplement the same by such aid as may be necessary, and adopt such measures as may be considered desirable and proper, so that my intentions may be carried out and fulfilled. Already lying under grave obligations to the Government, which has not unfrequently shown me kindness and favour which I shall ever remember, I need scarcely add that my gratitude will know no bounds, if the Government will be kind enough to approve of and accept my humble proposal. I shall be ready and very happy to pay the amount whenever I may be called upon to do so.

4. I have therefore the honour to request the favour of your bringing the proposal to the notice of His Honor the Lieutenant-Governor of Bengal through the proper channel.



OUTBREAK OF CHOLERA IN THE SERAMPORE SUB-DIVISION.

No. 1441, dated Calcutta, the 23rd December 1884.

From—COLMAN MACAULAY, Esq., Secretary to the Government of Bengal,  
To—The Commissioner of the Burdwan Division.

I AM directed to acknowledge the receipt of your endorsement No. 5T, dated the 12th instant, with which you submit a copy of a report from the Sub-Divisional Officer of Serampore on an outbreak of cholera in the Mahesh and Rishra wards of the Serampore Municipality. The disease made its appearance on the 17th November last, and lasted for 16 days, during which period 112 deaths took place. You bring to the notice of Government the good work done by Mr. Collier, the Sub-Divisional Officer, Dr. Barker, the Civil Medical Officer of Serampore, and Mr. Finlay, the Manager of the Hastings Mills, who took prompt and vigorous action in order to suppress the outbreak. The last-named gentleman appears to have rendered valuable help to the Sub-Divisional Officer and the Civil Medical Officer, and to have supplied, free of cost, medicines, disinfectants, and good drinking water from the factory.

2. In reply, I am directed to say that credit is due to Mr. Collier and Dr. Barker for their exertions in putting down the outbreak. I am to request that you will be good enough to convey to Mr. Finlay an expression of the acknowledgments of Government for the assistance which he rendered to the local officers.

3. The correspondence will be published in the *Calcutta Gazette*.

No. 5T, dated Camp Howrah, the 12th December 1884.

Memo. by J. BEAMES, Esq., Commissioner of the Burdwan Division.

COPY forwarded to the Secretary to the Government of Bengal, Judicial Department, for information. The Sub-Divisional Officer and the other gentlemen mentioned are deserving of credit for the prompt and vigorous action taken by them.

No. 2130, dated Serampore, the 4th December 1884.

From—F. R. S. COLLIER, Esq., Sub-Divisional Officer of Serampore,  
To—The Magistrate of Hooghly.

I HAVE the honour to submit a report, giving some particulars with regard to the recent outbreak of cholera at Rishra and Mahesh.

2. The first case occurred on the 17th November, and the disease spread very rapidly. I was absent in camp at the time the disease broke out, but returned on the 21st, and then heard of it for the first time. I immediately wrote to the Civil Surgeon, requesting him to visit the locality and report what measures he considered necessary. In reply, the Civil Surgeon stated that he had already visited the place on the 20th instant, and had made arrangements for the treatment of the sufferers. He complained that he had received no official intimation from the police before the 22nd.

3. On the 22nd I obtained some disinfectants from Dr. Barker, and sent the municipal overseer to the spot with instructions to use them. He displayed a great want of alacrity in carrying out my orders both then and subsequently, and I was obliged to warn him that I should dismiss him if he failed to do his best to check the progress of the epidemic. The number of deaths which had occurred up to the 22nd was ten.

4. On the morning of the 23rd I visited the village, accompanied by the Civil Surgeon. I found that no sulphur had yet been burnt by the Vice-Chairman, although he had been requested to get this done. I at once gave orders for the thorough fumigation of the *busti* by sulphur fires, and saw a number of them started. On the 24th I again visited the place and met the Civil Surgeon. We sent for 100 maunds of wood and all the sulphur we could get in the town and had it burned. We also sent into Calcutta for a maund of sulphur and a dozen bottles of rum to make tonic mixture for the coolies. There had been 26 cases and 14 deaths on the previous day. Mr. Finlay, of the Hastings Mills, to whose assistance I am much indebted, supplied gratis a large amount of wood and sulphur. It being represented to me by Mr. Finlay that the old burying ground behind the village was quite full, I ordered it to be closed, and selected a new one some three hundred yards further from the village. Having ascertained by personal inspection that the old graveyard was offensive, I had it covered a foot deep with jute waste which was then set on fire; after the jute waste had been burned, it was covered a foot deep with ashes from the mill.

5. On the 25th I again visited the *busti* and went all over it. Complaints having been made that Hindus were superficially burned on the river bank, I prohibited this practice in future, and ordered that they should be thoroughly burnt at the expense of the municipality. I found that no less than 13 new cases and 14 deaths had occurred since the previous day, and that the deaths now amounted to over fifty. As the outbreak was getting very serious, I placed the overseer under Dr. Barker's order, with a suitable warning directing him to leave all other work undone, deputed four constables to the *busti* to prevent infraction of sanitary rules, burnt another hundred maunds of wood and a large amount of sulphur, and had all the drains covered with quicklime; constables were stationed to prevent the resort to tanks supposed to be dangerous, and a pure supply of water from the mills was laid on across the Grand Trunk Road. Two additional compounders to assist the Civil Surgeon were also given by the Mill Manager.

6. Without troubling you with unnecessary repetition, I may state that similar measures have been taken day by day until within the last two days. I visited the place daily, and the Civil Surgeon was there twice a day as a rule, treating a large number of patients himself.

7. On the 25th the deaths fell to nine and on the 26th to seven. On the 27th and 28th there were eight and nine respectively; but it was noted that the new cases were not of so virulent a type, and we began to hope that the worst was over. On the 29th and 30th there were five deaths each day. On the 1st there were six deaths, but on the 2nd only two. Since then there have been no new cases, and I think that we may conclude that the outbreak is over. One case has, however, occurred in Serampore itself since, and two or three in Chattra, but the disease has not assumed an epidemic form.

8. The total number of deaths reported by the police as having occurred at Mahesh and Rishra up to date is 112.

Great credit is, I consider, due to Dr. Barker for the care which he took of the patients, and for the large share of personal labour which he took upon himself in visiting and treating them. The assistance which Mr. Finlay rendered in supplying medicines, disinfectants, and good water, and personally in assisting in the measures taken for checking the spread of the epidemic, was most valuable.

No. 2116, dated Hooghly, the 8th December 1884.

Memo. by G. TOYNBEE, Esq., Magistrate of Hooghly.

COPY submitted to the Commissioner of the Burdwan Division for information. The good services of Mr. Collier, Dr. Barker, and Mr. Finlay, will, I hope, be acknowledged by the Commissioner. Due warning of the outbreak was sent to the Military authorities, who arranged for crossing troops at Ghyretty Ghât and marching them *via* Barrackpore instead of *via* Kotrung.



## RESOLUTION ON THE CANAL REVENUE REPORTS FOR 1883-84.

GOVERNMENT OF BENGAL.

PUBLIC WORKS DEPARTMENT—IRRIGATION.

No. 19011.A., Calcutta, the 29th December 1884.

## RESOLUTION.

THE CANAL REVENUE REPORT FOR 1883-84.

## READ—

The Canal Revenue Reports for 1883-84, and the Chief Engineer's note on the same.

THE total capital outlay (direct charges) invested, up to the end of the year 1883-84, on irrigation works in Bengal, of which capital and revenue accounts are kept, has amounted to Rs. 6,37,51,362, divided as follows:—

			Rs.
Productive Public Works	...	...	5,47,20,704
Famine relief protective works	...	...	3,00,000
Imperial ordinary works	...	...	8,26,524
Provincial works	...	...	79,04,134
Total	...	...	6,37,51,362

The expenditure coming under the head Imperial ordinary was on preliminary expenses for projects which have since been abandoned or are in abeyance. The large increase in the amount at the debit of Provincial works is due to the expenditure to date on the Calcutta Canals (Rs. 51,92,444) being now for the first time shown under this head. A capital and revenue account for these canals was opened on the 1st of April 1883.

The receipts from the canals classed as productive public works for the last three years are shown in the table following:—

			Receipts, 1881-82.	Receipts, 1882-83.	Receipts, 1883-84.
			Rs.	Rs.	Rs.
<i>Orissa Canals.</i>					
Water-rates	...	...	1,24,290	1,80,325	1,11,856
Navigation	...	...	83,206	1,08,473	1,10,152
Miscellaneous	...	...	15,655	31,212	15,860
Total	...	...	2,23,151	3,20,010	2,37,868
<i>Midnapore Canal.</i>					
Water-rates	...	...	1,18,588	1,04,060	1,31,000
Navigation	...	...	1,20,706	1,46,922	1,20,580
Miscellaneous	...	...	10,780	17,028	12,996
Total	...	...	2,50,074	2,68,010	2,64,576

	Receipts, 1881-82.	Receipts, 1882-83.	Receipts, 1883-84.
	Rs.	Rs.	Rs.
<i>Hidgellee Tidal Canal.</i>			
Navigation ... ..	45,848	43,694	62,317
Miscellaneous ... ..	1,446	1,338	1,273
Total ... ..	47,294	45,032	63,590
<i>Sone Canals.</i>			
Water-rates ... ..	6,03,930	5,66,465	4,84,209
Navigation ... ..	93,116	71,205	85,193
Miscellaneous ... ..	39,246	47,007	34,405
Total ... ..	7,36,292	6,84,677	6,03,807
GRAND TOTAL ... ..	12,56,811	13,17,729	11,69,841

The balances of water rates outstanding on the 1st April 1884 and at the close of the two preceding years are shown in the table below:—

	1st April 1882.	1st April 1883.	1st April 1884.
	Rs.	Rs.	Rs.
Orissa Canals ... ..	1,14,142	1,21,647	52,203
Midnapore Canal ... ..	1,31,701	1,42,476	1,44,691
Sone Canals ... ..	4,36,849	3,11,665	4,34,793
Total ... ..	6,82,692	5,75,788	6,20,387

The receipts from all sources during the year amounted to Rs. 11,69,841

\* Exclusive of Rs. 427, expenditure in England on account of the houses acquired from the East India Irrigation and Canal Company—*vide* Accountant-General, Public Works Department, No. 69L, dated 16th September 1884.

and the working expenses (direct charges) to Rs. 10,69,394,\* so that the net revenue realized was Rs. 1,00,447 against Rs. 1,67,701 in 1882-83. Including interest, Rs. 21,60,758 payable to the Imperial treasury, and indirect charges debitable to revenue, the deficit of the year amounts to

Rs. 21,10,285. The financial results of the year's operations have been disappointing, the receipts being nearly  $1\frac{1}{2}$  lakhs of rupees less than those of the previous year, and the arrear balances, in which there was a considerable decline in 1882-83 showing a considerable increase. Under the head "Navigation" there was a slight increase in the revenue of the year, so that the falling off was entirely in water-rates and miscellaneous receipts. The decrease in the latter was due to less work having been carried out at the Dehree workshops, and to there having been no receipts in England from the leasehold property which belonged to the late East India Irrigation and Canal Company.

The main decrease has occurred in the item water-rates, the receipts from which were Rs. 1,23,785 less than in 1882-83, whilst the assessments were Rs. 1,27,227 in excess. The demand statements for a large proportion of this amount were, however, only made out in the last two months of the year. In Midnapore there was an increase of Rs. 26,940 in the water-rate collections as compared with the preceding year, so that the falling off occurred wholly in the receipts from the Sone and Orissa Projects, which showed a decline of Rs. 82,256 and Rs. 68,469 respectively. The decrease would have been even greater but for the reduction of Rs. 69,444 in the amount of arrear balances of water-rates in Orissa. The collections in Behar have improved during the current year, and the indifferent results of 1883-84 are due to the short irrigation of former years.



The areas irrigated during the last three years are shown below :—

		1881-82.	1882-83.	1883-84.
		Acre.	Acre.	Acre.
ORISSA	{ Khureef	... 1,26,611	1,28,530	47,035
	{ Rubbee	... 5,403	4,100	1,381
	{ Perennial	... 264	398	344
	Total	... 1,32,278	1,33,028	48,760*
MIDNAPORE	Khureef	... 1,04,434	1,01,939	97,919
SONE	{ Khureef	... 55,355	65,514	1,34,732
	{ Rubbee	... 36,795	15,999	99,304
	{ Perennial	... 21,891	15,275	6,732
	{ Hot weather irrigation	... 20,794	2,481	8,524
	{ Five years' lease	... 43,240	74,555	1,01,322
	Total	... 1,78,075	1,73,824	3 50,614
	Grand Total	... 4,14,787	4,08,791	4,97,293

\* Exclusive of 26,661 acres irrigated in an unauthorized manner.

There was, it will be noticed, a large increase in the area under irrigation from the Sone Canals, whilst in Orissa the leases for two-thirds of the area formerly irrigated were not renewed. A Commission has lately been appointed to enquire into the causes of the disinclination of the Orissa ryots to irrigate, and the Lieutenant-Governor awaits their report before passing any orders on the various proposals which have been submitted for consideration. As regards the Midnapore and Sone Canals, the area irrigated was measured by the powers of the canals to carry water, the demand far exceeding the supply available. The rains in September in both places were deficient and in October almost entirely absent, the result being that the crops beyond the limits of the canal water supply were in many places a total failure and in others seriously deficient. It unfortunately happens in seasons like the one described that the anxiety of the cultivators to obtain water leads them to set at defiance the water distribution arrangements of the Engineers. In Midnapore, with crops dying wherever not irrigated, the Superintending Engineer describes the cultivators as cross-damming the distributaries, regardless of authority and even after they had obtained sufficient water for their fields, keeping the outlets open for fishing purposes. This feature of the year's irrigation deserves serious consideration, as the chief value of the Bengal Canals is in seasons of drought, and it is imperative that the most should be made of the water-supply available.

The receipts credited under the head navigation amounted to Rs. 3,78,242, which is Rs. 7,948 in excess of the previous year's collections. This small increase, however, by no means measures the actual progress made, as the returns of the boats which passed through the canals showed a total of 821,934 tons in 1883-84 against 715,009 tons in 1882-83. Very considerable reductions in the tolls charged on the Orissa Canals were made with effect from the 1st of December 1883, and a surcharge of one-fourth of a pie per head per mile formerly levied on passengers was abolished both for the Orissa and Midnapore Canals from the same date. These reductions will, it is feared, check for the time, the steady growth in the navigation revenue of the canals which has from the first distinguished the canals in the Province. The surcharge was, however, found to be an irritating impost which offered opportunities for speculation, and the tolls during certain months of the year in Orissa were higher than those imposed elsewhere.

The Midnapore transport service continues to be managed by the Calcutta Steam Navigation Company, Limited, and the traffic arrangements are reported to be satisfactory to the public. The transport service on the Patna Canal has been made over to a contractor, and it is intended to withdraw the Government service from all canals so soon as private firms or companies are in a position to afford the requisite facilities for transport.

The tollage collections since 1876-77 are shown below :—

	Orissa.	Midnapore.	Hidgellee.	Sone.	Total.
	Rs.	Rs.	Rs.	Rs.	Rs.
1876-77	22,881	67,651	44,572	4,852	1,39,956
1877-78	33,844	1,06,917	60,971	26,774	2,28,506
1878-79	57,042	77,340	59,723	29,332	2,23,437
1879-80	62,349	91,861	44,918	27,604	2,26,722
1880-81	41,297	77,143	53,338	39,819	2,11,597
1881-82	53,219	98,060	45,848	54,143	2,51,270
1882-83	66,736	1,06,157	43,694	39,304	2,55,891
1883-84	61,602	1,08,931	62,317	48,032	2,80,882

The Lieutenant-Governor cannot regard the results of the year in a financial point of view as satisfactory. The cost of the canals, 21 lakhs of rupees yearly, is borne by the whole province, whilst the advantages are reaped by a few favoured districts. The Commission lately appointed to enquire into the administration of the Orissa Canals has been instructed to report on the actual profits derived from the works, independent of the share received by Government, and their enquiries will afford grounds for coming to a conclusion as to the propriety of endeavouring to secure for the State a larger share of the benefits reaped.

Mr. H. C. Levinge, Chief Engineer and Secretary to Government in the Public Works Department, retired on the 1st of January 1884. A public notification acknowledging his services appeared in the *Calcutta Gazette* for the 9th January 1884. But His Honor takes the present opportunity of again recording his appreciation of Mr. Levinge's administration of the Irrigation Branch of the Public Works Department for the five years during which he was in charge.

ORDER.—Ordered that a copy of this Resolution and of the note and its accompaniments, be submitted to the Government of India in the Public Works Department, for information; also that copies be forwarded to the Appointment, Revenue and Financial Departments of this Government; the Board of Revenue, Lower Provinces; the Commissioners of the Presidency, Burdwan, Patna, and Orissa Divisions; the Collectors of 24-Pergunnahs, Hooghly, Midnapore, Burdwan, Patna, Shahabad, Gya, Cuttack, and Balasore; the Superintending Engineers of the Orissa, South-Western, and Sone Circles, and the Examiner of Public Works Accounts, for information.

By order of the Lieutenant-Governor of Bengal,

J. M. McNEILE, *Lieut.-Col., R.E.*,

*Joint-Secretary to the Govt. of Bengal,*

*P. W. Dept.*



GOVERNMENT OF BENGAL.  
PUBLIC WORKS DEPARTMENT,—IRRIGATION BRANCH.

REVENUE REPORT.

*Note by* LIEUTENANT-COLONEL J. M. McNEILE, R.E., *Chief Engineer, on the Canal Revenue Reports for the year 1883-84.*

THE capital outlay (direct charges) on irrigation works in Bengal, during the year 1883-84, amounted to Rs. 22,04,808, made up as follows:—

			Rs.
Productive public works	...	...	14,03,439
Famine relief protective works	...	...	3,00,000
Imperial ordinary works	...	...	(—)1,200
Provincial works	...	...	5,02,569
Total	...	...	22,04,808

2. The total capital (direct charges) invested up to the end of the year 1883-84 was Rs. 6,37,51,362, as follows:—

			Rs.
Productive public works	...	...	5,47,20,704
Famine relief protective works	...	...	3,00,000
Imperial ordinary works	...	...	8,26,524
Provincial works	...	...	79,04,134
Total	...	...	6,37,51,362

3. The particulars of the above outlay are given below:—

				OUTLAY.	
				During the year.	To end of the year.
CAPITAL OUTLAY (DIRECT CHARGES).				Rs.	Rs.
PRODUCTIVE PUBLIC WORKS.					
Orissa canals	...	...	...	6,39,152	2,05,63,644
Midnapore canal	...	...	...	1,74,072	81,28,171
Hidgellee tidal canal...	...	...	...	.....	17,72,699
Sone canals	...	...	...	5,90,215	2,42,56,190
Total	...	...	...	14,03,439	5,47,20,704
IRRIGATION AND NAVIGATION WORKS.					
<i>Canals in abeyance or abandoned—</i>					
Tirhoot project	...	...	...	.....	5,31,425
Damoodur „	...	...	...	(—)1,200	1,52,673
Hooghly „	...	...	...	.....	1,42,426
<i>Canals under construction—</i>					
Sarun project	...	...	...	(—)4,004	6,64,019
Orissa coast canal	...	...	...	6,54,276	23,47,671
Circular and Eastern canals...	...	...	...	1,52,297	51,92,444
Total	...	...	...	8,01,369	90,30,658
GRAND TOTAL	...	...	...	22,04,808	6,37,51,362

4. The amount of Rs. 3,00,000 charged against the head "Famine Relief Protective Works" is the contribution sanctioned by the Government of India for the Orissa coast canal during the year under review, and is included in the outlay on that canal.

5. The Circular and Eastern canals have been classed as a project for which capital and revenue accounts are kept with effect from 1st April 1883, and the capital outlay incurred previous to that date, Rs. 50,40,147, is for the first time included in the column "To end of the year," thereby altering its total from what it should be according to the corresponding statement given in the report of the previous year.

6. The indirect charges other than interest, viz. (1) capitalized abatement of land revenue, (2) loss by exchange on payments in England, and (3) charges for leave and pension allowance debitable to capital, for and up to the year 1883-84, are shewn below:—

					INDIRECT CHARGES OTHER THAN INTEREST.	
					During the year.	To end of the year.
CAPITAL OUTLAY (INDIRECT CHARGES).					Rs.	Rs.
PRODUCTIVE PUBLIC WORKS.						
Orissa canals	...	...	...	...	15,068	7,64,582
Midnapore canal	...	...	...	...	12,325	2,62,895
Hidgellee tidal canal	...	...	...	...	.....	65,378
Sone canals	...	...	...	...	14,206	9,54,846
Total					41,599	20,47,701
IRRIGATION AND NAVIGATION WORKS.						
<i>Canals in abeyance or abandoned—</i>						
Tirhoot project	...	...	...	...	.....	74,650
Damoodur „	...	...	...	...	.....	16,122
Hooghly „	...	...	...	...	.....	2,816
<i>Canals under construction—</i>						
Sarun project	...	...	...	...	116	27,087
Orissa coast canal	...	...	...	...	19,368	53,465
Circular and Eastern canals	...	...	...	...	3,237	(a) 59,090
Total					22,721	2,33,230
GRAND TOTAL					64,320	22,80,931

(a) Inclusive of Rs. 55,853 on account of indirect charges of the previous years, not shown in the corresponding statement of the Revenue Report for 1882-83.

7. The total capital invested on irrigation works in Bengal, inclusive of indirect charges other than interest, amounted, up to the end of the year 1883-84, to Rs. 6,60,32,293 as follows:—

	Rs.
Productive public works	5,67,68,405
Irrigation and navigation works—	
Canals in abeyance or abandoned	9,20,112
Canals under construction	83,43,776
Total	6,60,32,293



8. The following statement shows the total receipts, working expenses, and charges for interest, in respect of productive public works, for the year 1883-84, as compared with the previous five years:—

PARTICULARS.	1883-84.	1882-83.	1881-82.	1880-81.	1879-80.	1878-79.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Receipts from all sources	11,69,841	13,17,729	12,56,811	10,19,375	11,03,781	8,59,071
Working expenses (direct charges) ...	(a) 10,69,394	11,50,028	10,43,134	9,93,448	9,21,763	8,05,610
Net revenue ...	1,00,447	1,67,701	2,13,677	25,927	1,82,018	53,461
Charge for interest ...	21,60,758	21,15,505	20,75,188	22,74,758	22,04,767	21,20,416
Deficit ...	20,60,311	19,47,804	18,61,511	22,48,831	20,22,749	20,66,955
Indirect charges debitable to revenue ...	49,974	43,426	60,700	57,280	53,966	44,529
Total deficit ...	21,10,285	19,91,230	19,22,211	23,06,111	20,76,715	21,11,484
Rate per cent. on capital outlay ...	3.71	3.59	3.53	4.33	4.01	4.26

(a) Exclusive of Rs. 427. Expenditure in England on account of the houses acquired from the E. I. L. C. Co., vide A. G., Public Works Department, No. 691, dated 16th September 1884.

9. The accumulated charges of interest on the capital outlay in irrigation and navigation works not classed as productive, having, in accordance with the Government of India, Public Works Department, Circular No. IV P. W., dated 1st May 1884, been eliminated from the Administrative Accounts of the Irrigation Branch for the year 1883-84, prepared by the Examiner of Public Works Accounts, Bengal, are not shown in this note.

The amount of interest for Productive Public Works for the year under review is Rs. 21,60,758. This is payable by the Local Government to the Imperial Treasury.

10. The following statement shows the particulars of the total accumulated debt on account of interest and unpaid working expenses amounting, up to the end of the year 1883-84, to Rs. 1,48,10,401, inclusive of indirect charges debitable to revenue:—

PARTICULARS.	Productive public works.	IRRIGATION AND NAVIGATION WORKS.		TOTAL.
		Canals in abeyance or abandoned.	Canals under construction.	
	Rs.	Rs.	Rs.	Rs.
Receipts from all sources ...	84,88,841	.....	1,76,17,952	2,61,06,793
Working expenses (direct charges) ...	93,18,740*	.....	64,72,196	1,57,90,936
Profit ...	(—) 8,29,899	.....	1,11,45,756	1,03,15,857
Charges for interest ...	2,44,99,229	.....	.....	2,44,99,229
Profit ...	(—) 2,53,29,128	.....	1,11,45,756	(—) 1,41,83,372
Indirect charges debitable to revenue ...	4,89,452	.....	1,37,577	6,27,029
Total profit to end of 1883-84 ...	(—) 2,58,18,580	.....	1,10,08,179	(—) 1,48,10,401
Rate per cent. on capital outlay ...	(—) 45.48	.....	131.93	(—) 22.74

\* Exclusive of Rs. 427, as noted above.

The receipts and charges of the Circular and Eastern canals, according to the revenue account opened during the year under review, are included in the column "Canals under construction."

11. The total expenditure on irrigation, navigation, and agricultural works during 1883-84 amounted to Rs. 46,44,009, distributed as follows:—

	Rs.	Rs.
54.—Productive public works—		
Capital account (Imperial) ... ..		(a) 13,38,974
39.—Productive public works—		
Revenue account (Provincial) ... ..		(b) 10,69,394
46.—Irrigation and Navigation works—		
Imperial ... ..	(—) 1,200	
Provincial ... ..	9,90,646	
		9,89,446
Famine relief protective works (Imperial) ... ..		3,00,000
Agricultural works—		
Imperial ... ..	7,47,345	
Provincial ... ..	1,87,170	
Contribution ... ..	11,680	
		9,46,195
Total ... ..		46,44,009

(a) Exclusive of Rs. 64,465 expenditure in England.

(b) " " 427 " " as noted before.

12. The total receipts of the year amounted to Rs. 19,66,807, shown below:—

	Rs.	Rs.
XXVIII.—Productive public works—		
Revenue account (Provincial) ... ..		11,69,841
XXXIII.—Irrigation and Navigation works—		
(Provincial) ... ..		7,90,215
Agricultural works—		
Imperial ... ..	4,628	
Provincial ... ..	2,123	
		6,751
Total ... ..		19,66,807

13. The following statement shows the areas irrigated and assessed, as compared with those of the five previous years:—

YEAR.	ORISSA CANALS.				MIDNAPORE CANAL.				SONE CANALS.				TOTAL.			
	Khureef.	Rubbee.	Perennial.	Total.	Khureef.	Rubbee.	Perennial.	Total.	Khureef.	Rubbee.	Perennial.	Total.	Khureef.	Rubbee.	Perennial.	Total.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1843-84 ...	47,694	1,382	344	49,420	97,919	.....	.....	97,919	244,578	99,304	10,732	354,614	589,531	100,086	7,076	497,293
1883-83 ...	128,530	4,100	368	133,028	101,321	.....	.....	101,321	142,550	15,999	15,275	173,824	373,019	20,099	15,673	408,791
1881-82 ...	226,611	5,403	264	232,278	104,444	.....	.....	104,444	119,289	26,795	21,891	178,075	350,149	42,483	22,155	414,787
1880-81 ...	112,171	4,577	173	117,221	105,802	.....	.....	105,802	134,208	50,200	23,127	207,625	350,241	55,167	25,390	428,283
1879-80 ...	105,184	3,616	226	109,026	100,179	.....	.....	100,179	41,132	62,260	27,158	130,556	245,490	65,882	27,394	338,772
1878-79 ...	105,501	5,517	233	111,251	58,761	.....	.....	58,761	99,964	77,430	19,624	197,018	284,071	83,071	19,857	366,939



## ORISSA CANALS.

14. The capital, interest, and revenue accounts of these canals are given below :—

## 1.—CAPITAL ACCOUNT.

HEADS OF ACCOUNT.		Outlay during 1883-84.	Outlay to end of 1883-84.
		Rs.	Rs.
DIRECT CHARGES.			
I.—Works	...	5,06,004	1,47,39,424
II.—Establishment	...	1,07,630	38,71,468
III.—Tools and plant	...	62,067	18,78,756
IV.—Suspense accounts	...	(—) 31,387	1,47,012
Total	...	6,44,314	2,06,36,660
V.—Less receipts on capital account	...	5,162	73,016
Net total	...	6,39 152	2,05,63,644
INDIRECT CHARGES.			
Capitalization of abatement of land revenue	...	...	32,363
Loss by exchange	...	...	2,94,089
Leave and pension allowances	...	15,068	4,38,130
Total Indirect Charges	...	15,068	7,64,582

## 2.—INTEREST ACCOUNT.

		Rs.
Interest charges to end of 1882-83	...	92,78,161
Ditto for 1883-84	...	8,09,762
Total	...	1,00,87,923

## 3.—REVENUE ACCOUNT—(ACTUALS).

EXPENDITURE.			RECEIPTS.	
	During 1883-84.	To end of 1883-84.	During 1883-84.	To end of 1883-84.
	Rs.	Rs.	Rs.	Rs.
Works (extensions and improvements)	.....	1,644	Water-rates	1,11,856
Repairs and maintenance	1,89,617	22,20,879	Navigation	1,10,152
Establishment	91,713	10,58,722	Miscellaneous	15,860
Tools and plant	11,292	1,26,954	Direct revenue realized in England	.....
Profit and loss	.....	640		38,686
Refunds of revenue	68	2,820	Total receipts	2,37,868
Direct expenditure in England	(a) ...	6,518	Deficit	54,822
Total expenditure	2,92,690	34,18,177	Total	2,92,690

(a) A sum of Rs. 427 was paid in England on account of the houses acquired from the E. I. C. Co., during the year 1883-84 as advised in A. G., Public Works Department, No. 691, dated 16th September 1884.

15. The total debt, exclusive of indirect charges, on account of interest and unpaid working expenses was Rs. 8,64,584 for the year under review, and Rs. 1,14,67,840 up to date.

16. The expenditure and earnings for the year 1883-84 are given below :—

EXPENDITURE.		EARNINGS.	
	Rs.		Rs.
Repairs and maintenance ...	1,89,564	Water-rates ...	74,206
Establishment ...	91,713	Navigation ...	1,07,147
Tools and plant ...	11,292	Miscellaneous ...	15,860
Refunds of revenue and compensation ...	121	Direct revenue realized in	
Direct expenditure in England...	.....	England ...	.....
		Total earnings ...	1,97,213
		Deficit ...	95,477
Total expenditure ... (a)	2,92,690	Total ...	2,92,690

(a) Exclusive of Rs. 427 as noted before.

17. The statement below shews the total lengths of canals and distributaries which were open at the close of the year, and the areas commanded and irrigated by each canal :—

NAME OF CANAL.	Length of canal open.		Length of distributaries and village channels.	Area protected from flood.	Area under command.	Area provided with distributaries.	Assessed areas.	
	For irrigation and navigation.	For irrigation only.					1882-83.	1883-84.
	Miles.	Miles.	Miles.	Acres.	Acres.	Acres.	Acres.	Acres.
Kendrapara ...	30	.....	330	129,421	101,110	87,300	56,066	17,840
Gobree ...	15	.....	.....	27,251	21,290	.....	4,308	393
Pattamoondee ...	.....	47	.....	65,600	51,250	.....	12,004	5,453
Kendrapara Extension ...	15	.....	.....	8,960	7,000	.....	.....	.....
Taldundali ...	27	.....	71½	19,520	15,250	15,250	10,719	1,319
Machgong ...	4	15	120½	44,978	71,000	55,100	34,012	8,081
High Level, 1st Range ...	33	.....	117½	62,483	62,600	44,730	13,955	11,537
Ditto, 2nd ...	13½	.....	.....	.....	120,000	.....	289	523
Ditto, 3rd ...	19	.....	.....	.....	57,500	.....	1,585	2,515
Total ...	164½	62	659½	358,163	507,000	182,390	133,028	48,760

The lengths of main canal are the same as those in operation at the close of the year preceding, but 13·75 miles of distributary were opened during the year. In addition to the areas regularly assessed 26,661 acres are reported to have been irrigated in an unauthorized manner. The very marked decrease in the irrigated area will be adverted further on; here it may be noted, that the percentage of area leased to that commanded by distributaries has fallen from 63½ per cent in 1882-83 to 22 per cent. in 1883-84.

18. The areas irrigated and the rainfall yearly for the last ten years are shown in the table following :—

YEAR.	Khureef.	Rubbee.	Perennial.	Total	Rainfall.
	Acres.	Acres.	Acres.	Acres.	Inches.
1874-75 ...	19,740	2,454	267	22,459	64·00*
1875-76 ...	13,991	4,102	314	18,409	70·00*
1876-77 ...	26,069	3,991	321	30,382	44·26*
1877-78 ...	95,088	3,071	336	98,495	47·94*
1878-79 ...	105,500	5,517	233	111,250	61·98*
1879-80 ...	105,186	3,616	236	109,038	60·85*
1880-81 ...	112,171	4,877	173	117,221	85·10*
1881-82 ...	126,611	5,403	264	132,278	56·89†
1882-83 ...	128,530	4,100	398	133,028	58·98†
1883-84 ...	47,035	1,381	344	48,760	57·18†

\* Mean of observations in Cuttack and Mareghai.

† Ditto at 13 stations.



19. The whole of the five-years' leases expired in November 1882; and, as was anticipated, there was an inclination on the part of the ryots to see if better terms could not be obtained by delaying to renew them. This course was favoured by the rainfall in June and July (29½ inches) being sufficient for the needs of cultivation, and it was not until late in September and October that water was much required. Up to the 1st of October only 14,758 acres had been leased; so soon however as real need of water was generally felt, there was a rush to lease, and by the end of the season engagements for 47,595 acres had been entered into. There was also a large amount of unauthorised irrigation reported by the Superintending Engineer at 21,801 (a) acres, and shown in statement VIII of the Deputy Superintendent's report as 26,661 acres. It is in years when there is an early cessation of the rains that water is of most value, and the incentive to misappropriate it strongest, especially as, should rain subsequently fall, evidence to substantiate the fact of irrigation is most difficult to procure.

A native association, the head-quarters of which is at Balasore, deputed an agent to visit the irrigated area, and to ascertain what grievances the cultivators suffered; an account of this gentleman's investigations has since been received and will be considered by the Commission which the Lieutenant-Governor has appointed to enquire into the administration of these canals. Meanwhile the area under lease has, up to the 1st of November 1884, reached 56,121 acres, and the circumstances of the year under review and that now current have been such that only lands which really needed canal water to save their crops have been irrigated.

20. As regards the policy of keeping the drainage lines of the country open, which is specially alluded to in the Commissioner's report, expenditure on such improvements adds nothing directly to the canal revenue, and they were undertaken mainly in consequence of representations made by every civil officer who has been concerned with canal management previous to Mr. Larminie. It is possible that in some seasons a small percentage of lands immediately adjacent to the natural drainage lines of the country would be more productive, if no special provision for drainage was made; in years of heavy rainfall this, however, is not the case, and the greater part of the country always benefits.

The matter will be thoroughly discussed with the Superintending Engineer and civil officers in December, so that any real remediable causes of complaint may be removed. If it was a question of the policy of keeping drainage channels open when it is for the benefit of the cultivators, generally, to have them closed, there could be no doubt in the matter; but the real point is that the interests of the large majority of the cultivators would always suffer by the closing of these channels, and that the injury, where there is any, can only affect an exceedingly small minority.

The impolicy of allowing the natural drainage channels of the country to be blocked up has been very forcibly brought to notice in almost every district of Bengal by this Department being called on to undertake remedial measures so soon as the consequences of the stoppage become fully apparent.

21. The total demand for the year on account of revenue recoverable by the Deputy Superintendent, including arrears of previous years, was Rs. 1,94,071; of this amount, Rs. 1,24,161 was realised, Rs. 8,763 remitted or written off as irrecoverable, and Rs. 61,147 remained due at the end of the year, of which Rs. 52,203 is the balance due on account of water-rates, and the remainder under the head "Miscellaneous."

The Deputy Superintendent remarks that the visit of the agent of the Orissa Association produced a general impression that the current year's water-rates would be reduced, and that the reduction would have retrospective effect. This impression had the effect of inducing the cultivators to postpone payment as long as possible, and rendered the process of recovery slow and tedious. The number of certificates filed under Act VII of 1880 during the year was only about one-fourth of those issued in 1882-83, but a large number of objections were disposed of under the Certificate Act, which are apparently referred to in paragraph 6 of the Commissioner's report, the full meaning of which is not quite clear.

Objections to the correctness of the assessment should be decided under the Irrigation Act, under section 91 of which the Commissioner is vested with

(a) It has since been reported that the Deputy Superintendent's figures are correct.

revisional jurisdiction. The proper procedure is laid down in Revenue Department letter No. 2779—1054L. R., of date the 9th December 1882, from which the following extract descriptive of the procedure prevailing in the districts watered by the Sone canals is taken:—

“On application to the canal authorities a ryot obtains a license to irrigate. The irrigated land is afterwards measured, and a *khatyan*, or statement of demand, is made out in the canal officer's *sharista*. One copy of this *khatyan* is sent to the Collector; another is served on the ryot by the canal authorities. Any objection on the part of the ryot is heard by the canal officer, from whose decision an appeal lies to the Collector under section 91 of Act III of 1876, the Collector's order being final. So far the canal officer, whose chief duties are those of assessment, assists the collecting staff. If the ryot makes no objection under Act III, or if, having objected, his objection is overruled, the canal officer's functions cease, and the process of realization begins. A notice of demand is issued by the Collector, and the usual procedure under the Public Demands Recovery Act is followed, shortened, however, by the fact that the ryots objections having already been determined under Act III, 1876, cannot be revived under the Certificate Act. This method of deciding objections under Act III, if introduced into Orissa, would obviate all necessity for enquiries under the Public Demands Recovery Act, and would render it unnecessary to vest the Canal Superintendent with the power of a Deputy Collector.”

The recovery of demands for water-rates under the Certificate Act, regarding which there have been some complaints, is one of the points which has been referred to the Commission, alluded to in paragraph 19.

22. Owing to the small area of land leased, the duty of the water utilized is considerably less than in previous years. The usual table is given below, but the results are vitiated by the large amount of unauthorized irrigation which is not taken credit for:—

NAME OF CANAL.	Effective average discharge in cubic feet.	Total for each main canal.	Area of khureef leased.	Total area for each main canal, including branches.	Average duty of each cubic foot of water.	Average duty of water for each main canal, including branches.
	C. ft.	C. ft.	Acres.	Acres.	Acres.	Acres.
Kendrapara ...	151	.....	17,060	.....	112.98	.....
Pattamoondoe ...	33	.....	5,436	.....	164.73	.....
Gobree ...	29	213	392	22,888	13.52	107.45
High Level, 1st range	177	177	11,915	11,915	67.31	67.31
Taldundah ...	29	.....	1,054	.....	36.34	.....
Machgong ...	74	103	8,636	9,690	116.70	94.07
Total ...	493	493	44,493	44,493	90.25	90.25

Water escaping is not included in the above discharges, and a better calculation would probably be to take the total discharges of the Kendrapara High Level and Taldundah canals (the other canals are branches) and to include in the area under irrigation the 26,661 acres irrigated without authority; calculated in this way the duty becomes  $\frac{71,154}{724} = 98.28$  acres per cubic foot.

23. The usual crop experiments were carried out during the year and details giving the results will be found in paragraphs 34 to 36 of the Superintending Engineer's report; the difference in favour of irrigation is more considerable than in 1882-83, and the produce of irrigated lands is valued at an average of Rs. 1.16 per acre in the Mahanuddy Division and Rs. 4.75 per acre in the Brahmini-Byturnee Division, above that from lands not irrigated.

24. The revenue credited during the year under the head “Navigation” amounted to Rs. 1,10,152. Of this sum, Rs. 61,602 was received from tolls on boats, and Rs. 48,550 was earned by the transport service.

The receipts since 1874-75 under this head are given below:—

	Tolls.	Transport service.	Total.
	Rs.	Rs.	Rs.
1874-75	21,412	Nil	21,412
1875-76	16,377	”	16,377
1876-77	22,881	”	22,881
1877-78	33,844	”	33,844
1878-79	57,042	”	57,042
1879-80	62,389	35,686	98,075
1880-81	41,297	30,105	71,402
1881-82	53,219	29,987	83,206
1882-83	66,736	41,737	1,08,473
1883-84	61,602	48,550	1,10,152



25. The length of navigable canals open (164½ miles) has remained the same as in the previous year, whilst there has been a decrease of Rs. 5,134 in the amount of tolls. This diminution is not, however, due to any falling off in the traffic, which it will be presently shown has slightly increased, but to a material reduction in the rate of tolls levied, which took effect from the 1st of December 1883. Up to that date a surcharge of quarter of a pie per head per mile was made on all passengers carried, and the rate of tolls during the eight dry months from November to June was double of that levied during the rest of the year. From the date mentioned the surcharge was abolished, and the lower rate only charged throughout the year.

The earnings of the year under this head were Rs. 1,07,147, compared with Rs. 1,10,129 in 1882-83.

26. Particulars regarding the tollage assessed compared with the previous year's results will be found in the table below :—

NAME OF CANAL.	Miles open.	Tollage.		Number of boats.		Tonnage.		Value of cargo.		Tollage per mile of canal.	
		1882-83.	1883-84.	1882-83.	1883-84.	1882-83.	1883-84.	1882-83.	1883-84.	1882-83.	1883-84.
		Rs.	Rs.	No.	No.	Tons.	Tons.	Rs.	Rs.	Rs.	Rs.
Taldundah ... ..	27	3,902	2,837	1,035	1,302	33,102	20,510	1,54,318	67,265	125'87	91'51
Machrong ... ..	4										
Kendrapara ... ..	39										
Ditto Extension...	15	54,253	44,224	7,433	8,387	79,284	84,744	35,29,270	38,25,850	786'42	640'92
Gobree ... ..	15										
High Level, 1st range	83	6,763	6,727	2,552	3,362	14,457	18,066	5,58,855	6,32,400	205'03	203'84
Ditto, 2nd " ...	123	3,438	3,800	1,118	1,862	11,228	17,723	1,41,355	1,70,140	275'64	304'00
Ditto, 3rd " ...	19	1,170	943	387	594	4,022	4,642	14,960	44,000	61'52	49'63
Total ... ..	164½	69,559	58,531	13,425	15,567	1,42,093	1,45,685	43,98,758	47,59,655	422'85	355'81

27. From the statement following it will be seen that as regards private traffic there has been an increase under all heads except that of tollage, in which there has been a decrease consequent on the reduction in rate previously mentioned :—

SUB-HEAD.			Government traffic.	Private traffic.	Total traffic.
Tollage	...	Rs.	—785	—10,243	—11,028
Number of boats	...	No.	—340	+2,422	+2,082
Tonnage	...	Tons.	—6,262	+9,854	+3,592
Value of cargo	...	Rs.	—45,301	+4,06,198	+3,60,897
Tollage per mile of canal	...	Rs.	—4'78	—62'27	—67'05

The total decrease of tollage has amounted to 15·85 per cent. during the year, of which 14·72 per cent. is due to the private traffic upon the canals.

28. Classified according to the description of goods carried, the private traffic is shown in table following :—

		TONNAGE.			
		1882-83.	1883-84.	Increase.	Decrease.
		Tons.	Tons.	Tons.	Tons.
Articles of food ... ..	...	39,094	48,703	9,609	...
Stimulants ... ..	...	23	29	6	...
Clothing ... ..	...	13	5	...	8
Staples of manufacture ... ..	...	1,950	2,803	853	...
Fuel ... ..	...	434	1,003	569	...
Building materials ... ..	...	3,289	3,357	68	...
Cooking utensils ... ..	...	89	177	88	...
Miscellaneous ... ..	...	9,252	9,578	326	...
Passengers ... ..	...	16,558	10,575	...	5,983
Empty boats ... ..	...	15,791	19,415	3,622	...
Total ... ..	...	86,493	95,643	15,141	5,991
Increase ... ..	...	...	9,150	...	...

The increased traffic has been mainly in goods coming under the heads of "articles of food" and "staples of manufacture," and has been general throughout the canal system, omitting the Taldandah and Machgong canals. The reduction of tolls amounts to 43 per cent. on that previously charged and it is feared that it will be some years before the increased traffic will be sufficient to allow of the former earnings being again reached.

The present rate of toll is equivalent to a charge of 7·11 pie per 100 mds. per mile, calculated on the displacement caused by the boat.

29. The cost of the establishment employed to work the locks was Rs. 8,603 against Rs. 8,329 expended under that head in 1882-83. In the accounts a sum of Rs. 6,078, properly debitable to the transport service, is shown under the head "Navigation," which includes both the lock establishment and the permanent staff of the transport service.

30. The total receipts, as credited in the accounts, from the Government transport service amounted to Rs. 48,550, or Rs. 6,813 more than in the preceding year; whilst the working expenses, inclusive of the cost of the permanent establishment, aggregated Rs. 29,883, leaving a profit of Rs. 18,667 against Rs. 3,267 realized in 1882-83. The profit was almost entirely due to the Cuttack-Chandbally line, as the steamer *Pioneer* employed between Cuttack and Bhuddruck did little more than cover her working expenses, though no tolls were charged. Details regarding the traffic are given in the table below:—

	TRAFFIC, 1882-83.									TRAFFIC, 1883-84.								
	Kendrapara and Taldandah Canals.			High Level Canal.			Total.			Kendrapara and Taldandah Canals.			High Level Canal.			Total.		
	Passengers.	Goods.	Total earnings.	Passengers.	Goods.	Total earnings.	Passengers.	Goods.	Total earnings.	Passengers.	Goods.	Total earnings.	Passengers.	Goods.	Total earnings.	Passengers.	Goods.	Total earnings.
	No.	Mds.	Rs.	No.	Mds.	Rs.	No.	Mds.	Rs.	No.	Mds.	Rs.	No.	Mds.	Rs.	No.	Mds.	Rs.
April ... ..	1,116	.....	2,763	145	264	101	1,261	264	2,864	1,622	.....	3,261	447	1,270	505	2,069	1,270	3,766
May ... ..	.....	.....	3	.....	.....	.....	.....	.....	3	.....	.....	47	144	391	222	144	391	269
June ... ..	1,963	.....	3,194	.....	.....	.....	1,963	.....	3,194	510	.....	1,163	99	152	127	609	152	1,290
July ... ..	1,315	.....	2,161	323	359	174	1,638	359	3,335	2,985	1,152	4,183	1,093	940	1,163	3,078	2,092	5,345
August ... ..	1,366	.....	3,175	174	201	86	1,540	201	3,261	1,857	1,335	3,199	421	511	471	2,278	1,846	3,670
September ... ..	1,935	.....	2,810	246	328	170	2,181	328	2,980	1,743	.....	2,824	636	1,740	822	2,379	1,740	3,346
October ... ..	1,970	.....	3,216	206	231	123	2,176	231	3,339	2,725	.....	4,983	777	1,107	837	3,593	1,107	5,326
November ... ..	2,322	1,301	5,068	210	244	129	2,533	1,545	5,134	2,036	.....	3,625	656	827	635	2,699	827	4,260
December ... ..	1,996	.....	4,778	194	353	127	2,190	353	4,905	2,564	2,963	4,817	761	1,168	754	3,325	4,071	5,579
January ... ..	1,928	1,829	3,945	264	200	207	2,192	1,529	4,153	2,328	2,126	4,426	770	1,057	759	3,093	3,183	5,185
February ... ..	1,471	803	3,507	402	569	443	1,873	1,372	3,952	2,063	418	3,796	756	1,085	712	2,819	1,503	4,508
March ... ..	1,945	642	3,703	657	1,456	748	2,602	2,098	4,451	2,489	1,861	4,376	1,037	2,648	1,209	3,526	4,509	5,585
Total ... ..	19,328	4,075	38,260	2,821	4,210	2,310	22,149	8,286	40,470	22,822	9,855	40,399	7,597	12,836	8,217	30,419	22,601	48,616

31. Government has for some time past been desirous of leaving the transport service to private enterprise; and it has only been kept up so long, as a state undertaking, in the absence of competition providing for the public wants by private companies.

Since the close of the year the steamer *Aurora* has been withdrawn from the Cuttack-Chandbally line, a private firm having taken up the work. It is understood that a large company interested in the coasting trade are building steamers with the view of extending their operations to Cuttack.

32. The miscellaneous revenue realized during 1883-84 amounted to Rs. 15,860 against Rs. 31,212, the receipts of the previous year. Of this sum Rs. 14,483 was, however, the proceeds of leasehold property in England



belonging to the late East India Irrigation and Canal Company, so that in reality there was a falling off in this branch of revenue of Rs. 869 only.

The various sub-heads on account of which money was received are shewn in the table following, which also gives the corresponding figures for 1882-83 :—

SOURCE OF REVENUE.	YEAR IN WHICH RECEIVED.		DIFFERENCE.	
	1882-83.	1883-84.	Increase.	Decrease.
	Rs.	Rs.	Rs.	Rs.
Plantations ...	776	811	35	.....
Rent of lands ...	3,655	4,650	995	.....
Canal produce ...	597	382	.....	215
Rent of buildings ...	2,584	2,832	248	.....
Fines and refunds ...	170	.....	.....	170
Sales of tools, &c. ...	.....	59	59	.....
Fisheries ...	551	479	.....	72
Sales of water ...	6	37	31	.....
English leasehold property ...	14,483	.....	.....	14,483
Miscellaneous ...	8,390	6,610	.....	1,780
<b>Total</b> ...	<b>31,212</b>	<b>15,860</b>	<b>1,368</b>	<b>16,720</b>
<b>Decrease</b> ...	.....	.....	.....	<b>15,352</b>

33. The receipts under the three heads—water-rates, navigation, and miscellaneous—for the last ten years are shown below :—

YEAR.	Water-rates.	Navigation.	Miscellaneous.	Total.
	Rs.	Rs.	Rs.	Rs.
1874-75 ...	20,382	21,412	6,691	48,485
1875-76 ...	20,330	16,377	8,783	45,490
1876-77 ...	40,378	22,881	11,298	74,557
1877-78 ...	1,17,818	33,844	9,445	1,61,107
1878-79 ...	1,16,416	57,042	16,484	1,89,942
1879-80 ...	1,57,747	98,075	23,365	2,79,187
1880-81 ...	1,78,047	71,402	20,329	2,69,778
1881-82 ...	1,24,290	83,206	15,655	2,23,151
1882-83 ...	1,80,325	1,08,473	31,212	3,20,010
1883-84 ...	1,11,856	1,10,152	15,860	2,37,868

34. The working expenses for the same years is given in the table following :—

PARTICULARS.	1874-75.	1875-76.	1876-77.	1877-78.	1878-79.	1879-80.	1880-81.	1881-82.	1882-83.	1883-84.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
<b>1.—Maintenance.</b>										
Works ...	1,17,547	1,36,856	1,40,494	1,37,944	1,47,113	2,58,748	1,99,554	2,17,753	2,22,431	1,89,564
Establishment, including direction and accounts ...	30,190	33,501	31,639	32,509	30,073	51,918	45,890	50,108	51,160	43,690
Tools and plant ...	18,070	5,823	11,683	8,234	17,238	8,389	12,266	13,348	14,923	11,202
Compensation ...	.....	.....	.....	.....	.....	.....	.....	.....	.....	63
Refunds of revenue ...	.....	.....	.....	41	623	512	777	414	345	63
Direct expenditure in England ...	.....	.....	.....	.....	.....	1,265	1,262	1,939	2,661	.....
<b>Total maintenance</b> ...	<b>1,55,717</b>	<b>1,76,180</b>	<b>1,83,821</b>	<b>1,77,828</b>	<b>2,04,047</b>	<b>3,20,832</b>	<b>2,59,755</b>	<b>2,83,553</b>	<b>2,90,950</b>	<b>2,44,577</b>
<b>2.—Revenue management.</b>										
Irrigation establishment ...	35,016	25,795	25,005	32,232	27,598	38,794	38,819	37,022	37,602	33,432
Navigation ...	5,694	5,653	5,835	6,083	7,445	8,723	7,501	8,085	13,578	14,631
<b>Total revenue management</b> ...	<b>40,710</b>	<b>31,438</b>	<b>30,840</b>	<b>38,314</b>	<b>35,043</b>	<b>46,947</b>	<b>46,313</b>	<b>45,107</b>	<b>50,580</b>	<b>48,113</b>
<b>Total working expenses</b> ...	<b>1,96,427</b>	<b>2,07,618</b>	<b>2,14,661</b>	<b>2,16,073</b>	<b>2,39,090</b>	<b>3,67,779</b>	<b>3,06,068</b>	<b>3,28,660</b>	<b>3,41,530</b>	<b>(a) 2,92,690</b>

(a) Enclusive of Rs. 427 paid in England.

In addition, Rs. 12,840 has been debited to the project on account of indirect charges, so that for the year there has been a loss of Rs. 67,662 against Rs. 35,271 in 1882-83.

35. In 1882-83 there was, compared with 1881-82, a reduction in the maintenance charge of Rs. 7,449, and there has been a further decrease of Rs. 22,972 in the expenditure under this head during the year under review. The table below gives the details by main heads of works:—

HEAD.				1882-83.	1883-84.	Increase.	Decrease.
				Rs.	Rs.	Rs.	Rs.
Head works	...	...	...	73,094	49,949	.....	23,145
Main canals	...	...	...	85,841	86,525	684	.....
Distributaries	...	...	...	26,554	25,799	.....	755
Drainage	...	...	...	3,721	3,965	244	.....
Total				1,89,210	1,66,238	928	23,900
Decrease				.....	22,972	.....	22,972

36. The head works suffered less damage than usual, the total expenditure on the seven weirs and works connected therewith having been Rs. 49,949 against Rs. 73,094, the cost of maintenance in 1882-83. Their total length being 18,474 feet, the rate per foot run has fallen from Rs. 3.95 to Rs. 2.70. On the main canals there has been a slight increase in the cost of maintenance. The table below shews the cost for each canal separately:—

NAME OF CANAL.				1882-83.		1883-84.		Average cost per mile.	
				Miles.	Cost.	Miles.	Cost.	1882-83.	1883-84.
					Rs.		Rs.	Rs.	Rs.
Kendrapara	...	...	...	39	23,346	39	26,823	599	688
Pattamoondoe	...	...	...	47	8,439	47	6,160	179	131
Gobree	...	...	...	15	5,222	15	6,025	348	402
Kendrapara Extension	...	...	...	15	2,136	15	2,795	142	186
High Level, 1st range	...	...	...	33	18,128	33	18,206	549	552
Ditto, 2nd „	...	...	...	12½	3,422	12½	3,577	274	286
Ditto, 3rd „	...	...	...	19	3,619	19	6,981	190	367
Taldundah	...	...	...	27	14,208	27	10,652	526	394
Machgong	...	...	...	19	7,321	19	5,306	335	279
Total				226½	85,841	226½	86,525	379	382
Increase				.....	.....	.....	684	.....	3

37. The expenditure on maintaining the 639½ miles of distributaries in operation amounted to Rs. 25,799, being at the rate of Rs. 42 per mile against Rs. 40, the rate for the previous year. A further sum of Rs. 3,965 was expended on drainage channels and 79½ miles of embankment, the repairs of which are debitable to the revenue account of the canals.



MIDNAPORE CANAL.

38. The Capital, Interest, and Revenue Accounts are given below:—

1.—CAPITAL ACCOUNT.

PARTICULARS.				Outlay during 1883-84.	Outlay to end of 1883-84.
DIRECT CHARGES.				Rs.	Rs.
I.—Works	...	...	...	14,670	53,19,256
II.—Establishment	...	...	...	2,562	19,19,383
III.—Tools and plants	...	...	...	93,773	8,30,157
IV.—Suspense account	...	...	...	65,005	89,552
Total outlay				1,76,010	81,58,318
V.—Less receipts on capital account	...	...	...	1,938	30,177
Net total				1,74,072	81,28,171
INDIRECT CHARGES.					
Capitalization of abatement of land revenue	...	...	...	6	14
Loss by exchange	...	...	...	11,960	79,728
Leave and pension allowances	...	...	...	359	1,83,153
Total				12,325	2,62,895

2.—INTEREST ACCOUNT.

				Rs.
Interest charges to end of 1882-83	...	...	...	37,64,784
Ditto for 1883-84	...	...	...	3,21,645
Total to end of 1883-84				40,86,429

3.—REVENUE ACCOUNT (ACTUALS).

	EXPENDITURE.			RECEIPTS.	
	During 1883-84.	To end of 1883-84.		During 1883-84.	To end of 1883-84.
I.—Works and Repairs.	Rs.	Rs.		Rs.	Rs.
Works (extensions and improvements)	.....	40,655	Water-rates	1,31,000	10,26,971
Maintenance and repairs	1,27,628	13,55,884	Navigation	1,20,580	10,29,082
Establishment, including direction and accounts	29,342	3,09,253	Miscellaneous	12,996	1,18,293
Tools and plant	31,229	1,68,134			
Total works and repairs	1,88,199	18,73,926			
I (a).—Compensation	30	30			
II.—Revenue management.					
Irrigation establishment	19,862	2,40,770			
Navigation establishment	7,511	96,635			
Total	27,373	3,37,405			
III.—Refunds of Revenue.	44	61			
Total working expenses	2,15,646	22,11,422			
Profit	48,930	(—)37,076			
Total	2,64,576	21,74,346	Total	2,64,576	21,74,346

39. The revenue account calculated on the earnings of the year is shown below :—

Expenditure.	Amount.	Earnings.	Amount.
<i>I.—Works and Repairs.</i>	Rs.		Rs.
Works (extensions and improvements) ...	.....	Water-rates ...	1,46,941
Maintenance and repairs ..	1,27,658	Navigation ...	1,20,148
Establishment, including direction and accounts ...	29,342	Miscellaneous ...	14,465
Tools and plant ..	31,229		
Total works and repairs ...	1,88,229		
<i>II.—Revenue management.</i>			
Irrigation establishment ...	19,862		
Navigation do. ...	7,511		
Total ...	27,373		
<i>III.—Refunds of Revenue.</i>	44		
Total working expenses ...	2,15,646		
Profit ...	65,908		
Total ...	2,81,554	Total ...	2,81,554

40. The usual table giving the areas irrigated during 1883-84 and year preceding is given below :—

PARTICULARS.	Totals as provided for in the revised estimate.	MIDNAPORE WEIR, RANGES NOS. IV AND V.		PANCHCOORAH WEIR, RANGE No. III.		TIDAL RANGES, RANGES NOS. I AND II.		TOTAL.		REMARKS.
		1882-83.	1883-84.	1882-83.	1883-84.	1882-83.	1883-84.	1882-83.	1883-84.	
Length of distributaries and branch canals ...	299.12 miles	228.74	224.38	35.25	34.25	18.00	18.00	281.99	277.63	* Superintending Engineer's figures shown by the Deputy Superintendent as 101,939 acres.
Area commanded ...	125,000 acres	100,000	100,000	23,000	23,000	2,000	2,000	125,000	125,000	
Area irrigated ...	Acres	88,573	80,803	12,159	10,721	903	393	101,637*	97,913	
Percentage of area irrigated on area commanded ...	.....	83.57	80.80	52.86	45.60	46.25	19.6	81.30	78.33	

There has, it will be noticed, been, compared with the preceding year, a decrease in the irrigated area of 3,718 acres.

41. The rainfall for the years 1882-83 and 1883-84 is shown in the table below, in which the average fall is also noted :—

STATION.	Rainfall, 1883-84.	Rainfall, 1882-83.	REMARKS.
Midnapore ...	43.61	66.04	Average of 15 previous years, 55.24.
Panchcoorah ...	51.92	51.59	Average of 14 previous years, 51.00.
Contai ...	60.31	61.01	

42. The season was peculiar, there were copious falls of rain during the months of July and August and in the early part of September, and it was not until about the 20th of that month that there was any pressing demand for canal water. From that time to the end of the season it became a question of the ability of the canal to supply water, which was eagerly clamoured for every where. New leases had to be refused, and the efforts of the establishment were directed to making the most of the water supply available; eventually the cultivators got quite out of hand and police constables were placed at the disposal of the Executive Engineer to assist in maintaining some kind of order. The



area watered may, perhaps, be looked on as the most the canal is capable of irrigating in seasons, when late in the year there is a sudden rush for water for lands, the irrigation of which has been postponed until the last moment. The Deputy Revenue Superintendent has been vested with the powers of a Magistrate, so as to admit of his dealing more promptly with the cases of the misappropriation of canal water. It is possible that some good may result from the measure, but when the crops are in danger of dying, the ordinary ryot will incur almost any risk to save them. Unfortunately water taken in defiance of authority is wasted as well as utilized, with the result that crops, which might be preserved if the water was carefully and economically used, perish.

It has several times been proposed, as the areas regularly leased have the first right to the water-supply available, not to grant permits after a fixed date, say the 1st of July, but this plan has the demerit of forcing the cultivators who have not made applications to use water without authority, if at all, and consequently to remove all restraints on the way it is applied. A considerable concession in the matter of water-rates is made to persons who lease for five years, and under present circumstances this appears to be the only method in which pressure can be brought on the ryots to irrigate their lands before the crops are in actual danger. The Superintending Engineer observes that—

“The lesson to be learnt from the experience of the season under report appears to be that the cultivators must be advised to complete their watering early and arrange to have their fields well filled before the end of September, and they must be made to understand that in October the supply is liable to fail, and water can only be given after long intervals in such cases. Unless timely precautions are taken to secure the fields before October, we cannot be responsible for subsequent failure of supply, and the remedy is entirely in their hands.”

43. The duty of the water used, calculated on the average daily discharge for the whole irrigation season, was 208 acres per cubic foot per second for the area commanded by the Midnapore weir, and 81 acres for the area commanded by the Panchcoorah weir. In 1882-83 the respective duties similarly calculated were 144 and 85 acres per cubic foot.

44. The Superintending Engineer, at page 11 of his report, has given an interesting account of the irrigation from No. 4 or the Authra distributary, which commands 28,528 acres, and was designed to discharge 211 cubic feet per second.

The following summary is taken from the Superintending Engineer's report:—

“The total area irrigated was only 22,195 acres. The total area leased was 23,980 acres.

The total of the daily discharges for the season was 10,086 cubic feet per second, and the total of the areas irrigated amounted to 55,359 acres.

Each acre, therefore, received on the average  $\frac{55,359}{22,195} = 2\frac{1}{2}$  waterings of 43 inches in depth for this season.

The average daily discharge for the season was  $\frac{10,086}{161} = 62$  cubic feet per second, which gives a duty of 358 acres per cubic foot of discharge.

The progress of the irrigation month by month may be thus stated:—

TO END OF MONTH.	Areas leased.	AREAS IRRIGATED IN ACRES.					Total discharge of month.	Average daily discharge.	Duty per cubic foot.
		First watering.	Second watering.	Third watering.	Fourth watering.	Total.			
							Cubic feet per second.	Cubic feet per second.	Acres.
August ...	18,977	18,539	2,525	.....	.....	21,065	.....	.....	.....
September ...	18,825	506	8,811	2,588	.....	11,905	2,914	104	114
October ...	21,169	2,942	6,495	6,829	26	16,292	2,664	95	171
November ...	23,980	217	1,567	1,352	2,981	6,107	769	22	279
Total ...		22,195	19,388	10,769	3,007	55,359	.....	.....	.....

45. The results show how dependent this system of canals is on assistance from rainfall. As pointed out by Colonel Gulliver, when the Sone Canal distributaries were being designed, it was never intended that the water-supply of a distributary should suffice to irrigate the area commanded independent of rainfall, in all years some assistance is certain, and the duty of the water is to secure a full crop by supplementing the natural irrigation, so obtained with water from the river. The duty obtained must consequently vary, and will be the greatest

in those years in which there is a moderate rainfall only, combined with a demand for water in excess of the fall.

46. The arrears at the commencement of the year under the head water-rates amounted to Rs. 1,42,476, the current demand was Rs. 1,47,992, making a total of Rs. 2,90,468. Of this sum, Rs. 1,31,000 was collected, Rs. 14,777 remitted, and Rs. 1,44,691 remained as the balance unrealized on the 1st of April 1884. In addition, Rs. 12,228 were credited as miscellaneous revenue. The demand and recoveries for five years are shown in the table below, which includes miscellaneous revenue collected by civil officers:—

YEAR.	Amounts earned as water-rate during the year.	Total demand under all heads.	Cash received under all heads.	Remission.	Total.	Balance.	Cost of collection.	Percentage of cost on total demand.	Percentage of cost on recoveries.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.		
1879-80 ... ..	1,51,587	1,09,854	1,41,632	688	1,42,320	57,584	15,015	7.51	10.60
1880-81 ... ..	1,55,730	2,31,116	1,22,489	6,823	1,29,312	1,01,804	14,650	6.33	11.96
1881-82 ... ..	1,56,690	2,71,001	1,38,529	3,668	1,32,197	1,38,804	17,172	6.33	13.36
1882-83 ... ..	1,55,246	3,04,486	1,18,150	42,536	1,55,686	1,48,800	18,683	6.13	16.51
1883-84 ... ..	1,46,941	3,10,573	1,43,228	14,934	1,58,162	1,52,411	18,537	5.98	12.97

47. It is satisfactory to note that out of the Rs. 1,43,228 realized during the year by the Deputy Superintendent, Rs. 1,12,182 was paid in voluntarily, and Rs. 31,046 only, recovered after legal proceedings had been commenced. A commencement has been made in enlisting the co-operation of the leading ryots in the matter by appointing them as headmen and remunerating them by a small commission. The Collector has been given the widest discretion in the matter, subject to a maximum charge of half-an-anna in the rupee on the total amounts realized during the year, and it is hoped that this system will gradually spread.

The amount collected as water-rates is in excess of any year to date, but it is not satisfactory to find that the arrear balance is constantly increasing. The matter is now having the attention of the Collector, and it is hoped that when once the irrecoverable balances of former years have been ascertained and remitted, the improvements which have been lately effected in the organization of the revenue establishment will bear fruits, and future years show a marked decline in these balances. The Commissioner states that—

“The tehsildars’ offices are reported to be in order, and when the kabulyat registers are completed, and they are reported to be all but complete, there is hardly any information which will not be available at a moment’s notice. Much, however, will depend on the amount of intelligent supervision exercised by the Deputy Superintendent over the proceedings of the tehsildars, and I hope Mr. Ghose will continue to show the zeal which characterized his administration during the year under report.”

This testimony is valuable as showing that a vigorous effort to correct previous deficiencies is being made, and as pointing out how much the work depends on the energy and industry of the responsible officers.

48. The new rules under Act III (B.C.) of 1876, which were adverted to in paragraph 41 of last year’s report, were under discussion throughout the year, but have been passed since its close; they are reprinted as an appendix to this report. They were very fully considered, and it is thought that they will help towards reducing the number of disputes and facilitate the work in various ways.

49. The usual crop experiments were carried out in 1,075 places, the results being very favourable to the irrigated crops, the produce of which was on an average 15.54 maunds more paddy and 20.42 maunds more straw per acre than these grown on unirrigated lands. The Commissioner remarks on this large difference, which he states is not explained either by the Executive Engineer or the Deputy Revenue Superintendent. There was, however, little or no rain during the month of October, and it is notorious that the crops which did not receive water suffered severely; this is probably a sufficient reason for the exceptionally great differences between the yield of paddy from irrigated and unirrigated lands. The experiments were conducted in the manner usual since 1873, and have frequently, notably in 1876 and 1881, showed little or no difference in favour of irrigation.

50. The total income credited during the year under the head “navigation” amounted to Rs. 1,20,586, of which Rs. 1,08,931 was received from tolls on boats, Rs. 11,649 being the amount paid by the Calcutta Steam Navigation Company, “Limited,” as hire of steamers and compounded tolls.



51. The following tables which embrace ten years give some particulars regarding the traffic :—

## CANAL TRAFFIC.

DESCRIPTION.	1874-75.	1875-76.	1876-77.	1877-78.	1878-79.	1879-80.	1880-81.	1881-82.	1882-83.	1883-84.
Mills opened at end of year ... No.	48	48	49	48	48	48	48	48	48	48
Toll collections ... Rs.	44,886	51,810	67,651	1,06,917	77,340	91,861	77,143	98,060	1,06,157	1,09,231
Rate of tolls per mile... "	935	1,070	1,409	2,227	1,611	1,913	1,607	2,043	2,311	2,269
Boats including empties ... No.	29,067	36,433	41,372	52,251	48,224	52,044	45,461	51,469	52,554	52,009
Measurement tonnage of boats, including empties... Tons.	168,090	169,380	239,013	360,968	290,488	320,927	292,452	332,325	360,973	362,979
Passengers carried ... No.	.....	145,447	131,071	126,013	128,098	180,294	166,238	202,029	181,251	170,745
Estimated value of cargo ... Rs.	1,13,23,908	1,22,07,919	1,13,26,866	1,71,09,384	1,50,51,350	1,59,41,496	1,43,15,668	1,47,79,798	1,69,43,032	1,79,53,406

## CLASSIFICATION OF TRAFFIC.

CLASS OF GOODS.	1874-75.	1875-76.	1876-77.	1877-78.	1878-79.	1879-80.	1880-81.	1881-82.	1882-83.	1883-84.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Articles of food ...	61,407	69,425	114,336	201,256	108,339	118,440	98,943	137,137	177,238	189,185
Stimulants ...	4,327	8,228	10,819	18,199	14,763	16,015	14,896	15,639	4,633	4,371
Clothing ...	7,355	6,558	5,801	8,893	8,950	10,223	10,290	10,325	3,453	2,965
Staples of manufacture ...	14,760	20,172	19,399	19,104	24,942	28,080	31,023	24,834	11,394	34,563
Building materials ...	7,240	11,140	18,030	19,323	28,268	36,325	29,852	32,315	27,533	17,163
Fuel ...	5,606	4,707	6,142	8,952	11,558	10,312	13,428	14,531	13,408	5,396
Cooking utensils ...	1,708	2,133	2,782	3,677	4,613	5,521	4,376	4,546	5,452	.....
Miscellaneous ...	65,290	67,021	67,572	79,313	79,518	94,737	39,295	94,978	117,647	112,117

52. The first reach of the Midnapore canal and the Narainghur navigable distributary were closed for silt clearance from the 14th of February to the 6th of March. The Baramullah and Goalsamah locks were closed from the 25th February to the 7th of March, and from the 15th to the 25th of that month to allow of the valves being repaired, thus interrupting the through traffic. A set of diving apparatus have been procured, and it is hoped that small repairs will in future be carried out without closing the canal. A project for supplying the Ooloberiah reach with water from the Eden canal is under consideration, and, if carried out, may perhaps admit of all silt clearance being effected by dredgers. At present this cannot be done.

53. The steamer service between Calcutta and Midnapore, formerly worked by Government, was in the hands of a private company, and the Superintending Engineer states that it has given general satisfaction, any suggestions towards securing the safety of the passengers being willingly adopted. There were two lines of steamers belonging to different owners plying on the canal, and it is noted that nine steamers and flats are being built for the service.

54. The table below shows the number of passengers and weight of goods carried monthly by the Calcutta Steam Navigation Company, "Limited," to whom the steamers belonging to Government have been hired :—

MONTHS.	PASSENGERS.				Goods.
	First class.	Second class.	Third class.	Total number.	
1883.					Mds. Srs.
April ...	26	99	11,420½	11,545½	347 13½
May ...	17	162½	10,331½	10,511	.....
June ...	13	241	11,167½	11,421½	297 11½
July ...	32	254	11,255	11,541	319 5
August ...	25½	276	11,095	11,305½	329 14
September ...	17	232	10,337½	10,586½	198 4
October ...	24	398	10,572	10,994	280 3½
November ...	19	255	10,193	10,467	227 14
December ...	69	441½	10,142	10,652½	472 37
1884.					
January ...	78	545½	11,553	12,176½	200 20
February ...	64½	560	15,114	15,738½	164 34½
March ...	86	519	23,856	24,461	352 32½
Total number	471	3,982½	146,947	1,51,400½	3,582 21
Total for 1882-83	441	1,507	145,841	1,47,78	374 5½

55. Generally there has been a slight increase in the traffic on the Midnapore canal during the year, resulting in the tolls received being Rs. 2,990 in excess of the previous year's receipts, notwithstanding a slight reduction in the tolls levied the surcharge of quarter pie per head per mile formerly levied on passengers having been abolished from the 1st December 1883.

56. The realizations under the head "miscellaneous" amounted to Rs. 12,996, of which Rs. 768 was received by the Executive Engineer, and the balance collected by the Deputy Revenue Superintendent.

57. The following tables show the receipts on revenue account and working expenses for the last ten years:—

## REVENUE RECEIPTS.

YEAR.	Water-rates.	Navigation.	Miscellaneous.	Total.
	Rs.	Rs.	Rs.	Rs.
1874-75	67,015	44,886	4,316	1,16,217
1875-76	52,791	51,810	6,508	1,11,109
1876-77	61,460	67,651	7,876	1,36,987
1877-78	53,483	1,06,917	9,693	1,70,093
1878-79	85,014	77,340	8,356	1,70,710
1879-80	1,30,140	1,05,518	11,567	2,47,225
1880-81	1,12,960	93,099	10,407	2,16,466
1881-82	1,18,588	1,20,706	10,780	2,50,074
1882-83	1,04,060	1,46,922	17,028	2,68,010
1883-84	1,31,000	1,20,580	12,996	2,64,576

## WORKING EXPENSES.

	1874-75.	1875-76.	1876-77.	1877-78.	1878-79.	1879-80.	1880-81.	1881-82.	1882-83.	1883-84.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
<i>Maintenance.</i>										
Works and repairs ...	92,185	1,13,225	1,09,509	1,41,334	1,09,211	94,488	1,21,607	1,35,114	1,40,067	1,27,629
Establishment ...	19,425	26,398	27,602	33,066	28,513	19,163	26,100	31,022	32,218	29,342
Tools and plant ...	714	4,164	9,714	6,117	13,083	17,636	17,975	36,448	31,354	31,229
Refunds ...	.....	.....	.....	17	.....	.....	.....	.....	.....	44
Compensation ...	.....	.....	.....	.....	.....	.....	.....	.....	.....	30
Total maintenance ...	1,12,324	1,43,787	1,46,885	1,80,474	1,50,807	1,30,686	1,65,682	2,02,584	2,03,639	1,88,273
Irrigation establishment ...	11,006	16,463	17,245	16,189	14,802	16,377	16,161	18,371	20,337	19,862
Navigation ditto ...	7,097	7,119	7,149	7,151	7,227	7,340	7,437	7,519	14,101	7,611
Total revenue management...	18,103	23,612	24,394	23,340	22,029	23,717	23,598	25,890	34,438	27,473
Total working expenses ...	1,30,427	1,67,399	1,71,279	2,03,814	1,72,836	1,54,403	1,89,220	2,28,474	2,38,077	2,15,646

The above table does not include indirect charges, which for the year amounted to Rs. 7,940, the net revenue derived from the canal being Rs. 40,990 against Rs. 21,508, received in the year preceding. It will be noticed that the decrease in the gross receipts is due to the transport service being no longer maintained by Government, and there is a corresponding reduction in the working expenses.

58. The cost of maintaining the canal and distributaries for the last five years is given in the table below:—

YEAR.	MAIN CANAL.			DISTRIBUTARIES.		
	Length of canal.	Total cost of works.	Rate per mile.	Length of distributary channels.	Total cost of works.	Rate per mile.
		Rs.	Rs.		Rs.	Rs.
1879-80 ...	48	56,645	1,180	254	16,159	63
1880-81 ...	48	80,093	1,687	267	20,140	76
1881-82 ...	48	1,03,910	2,164	277	11,854	42
1882-83 ...	48	1,01,821	2,121	277	20,407	73
1883-84 ...	48	1,06,425	2,216	277	21,195	76

The tendency to increase shown in these charges is unsatisfactory; so far as the main canal is concerned the reason given, the greater quantity of silt dredged, is fairly adequate; but it should be possible to maintain the distributaries at nearly the same rate as is found to be sufficient in Orissa. This was pointed out last year, and the absolute necessity of exercising greater economy in the matter will again be impressed on the local officers.



59. The question of dredging on this canal is yearly increasing in importance. There is a daily service of steamers between Midnapore and Calcutta and *vice versa*, by which the mails are conveyed, and daily or bi-weekly steamers to other places; any closure of the canal causes accordingly much public inconvenience and numerous complaints. Great attention has accordingly been directed towards improving the outturn from the dredgers and to keeping them constantly employed. The results have been satisfactory. The work done during the year has increased from 26 to 44 lacs, and the cost per thousand cubic feet has been reduced from Rs. 13.7 per 1,000 cubic feet to Rs. 10.57 per 1,000 cubic feet. The number of days working has been 1,593 against 1,405 in 1882-83.

60. The following table extracted from the Superintending Engineer's report gives particulars regarding the working of each dredger during the year:—

NAMES OF DREDGERS.	NUMBER OF DAYS AT WORK.		QUANTITY OF WORK DONE.				COST OF WORKING DREDGER DURING THE YEAR.		RATE PER 1,000 CUBIC FEET.	
	1882-83.	1883-84.	Per day.		During the year.		1882-83.	1883-84.	1882-83.	1883-84.
			1882-83.	1883-84.	1882-83.	1883-84.				
			C. ft.	C. t.	C. ft.	C. t.	Rs.	Rs.	Rs.	Rs.
"Hector" Bucket ...	240	216	2,990	3,136	715,430	677,470	6,883	6,755	9.8	9.97
"Ajax" Hydraulic ...	213	234	3,896	6,753	829,880	1,512,709	13,469	9,846	9.0	6.51
"Atlas" Hydraulic ...	151	219	4,986	7,095	653,230	1,645,300	4,096	9,019	12.8	5.33
"Combination" Pouracre's	245	293	1,436	1,577	364,000	461,050		3,000		8.46
Scraper Dredger No. I ...	201	60	226	242	43,595	14,516				
Ditto No. II ...	293	129	194	293	39,590	37,700				
Ditto No. III ...		188		221		41,625	6,376	6,787	52.9	48.4
Ditto No. IV ...	172	264	204	174	35,250	46,000				
Ordinary and steam hopper and mud barges ...							5,386	7,073		
Steam-launch "Kobaduck" ...								2,850		
Ditto "Coot" ...								8		
Ditto "Sir Arthur" ...										
Cotton ...								213		
Total ...	1,405	1,593	1,909	2,812	2,632,835	4,477,241	30,810	47,351	13.7	10.57

N.B.—Dredger *Hector* was under repairs from 26th January to 31st March 1884.

61. A new dredger has been procured from England since the close of the year, and more barges are being constructed.

#### HIDGELLIE TIDAL CANAL

62. The capital, interest, and revenue accounts are given below:—

##### 1.—CAPITAL ACCOUNT.

HEADS OF ACCOUNT.	Outlay during 1883-84.	Outlay to end of 18 3-84.
<b>DIRECT CHARGES.</b>	Rs.	Rs.
I.—Works		12,66,239
II.—Establishment		4,49,790
III.—Tools and plant		57,585
IV.—Suspense account		
Total outlay		17,73,614
V.—Less receipt on capital account		915
Net total		17,72,699
<b>INDIRECT CHARGES.</b>		
Capitalization of abatement of land revenue		11,210
Loss by exchange		20,571
Leave and pension allowance		33,597
Total		65,378

##### 2.—INTEREST ACCOUNT.

	Rs.
Interest charges to end of 1882-83	9,87,618
Ditto ditto for 1883-84	70,908
Total to end of 1883-84	10,58,526

## 3.—REVENUE ACCOUNT—(ACTUALS).

	EXPENDITURE.			RECEIPTS.	
	During 1883-84.	To end of 1883-84.		During 1883-84.	To end of 1883-84.
<i>I.—Works and repairs.</i>	Rs.	Rs.		Rs.	Rs.
Works (extensions and improvements) ..	.....	3,033	Water-rate .....	.....	2,611
Maintenance and repairs ..	32,994	2,98,819	Navigation .....	62,317	5,63,890
Establishment ..	7,588	69,194	Miscellaneous .....	1,273	11,728
Tools and plant ..	2,784	11,527			
Total works and repairs.	43,366	3,82,573			
<i>II.—Revenue management.</i>					
Navigation establishment ..	3,215	37,125			
Total working expenses	46,581	4,19,698			
Profit ..	17,009	1,58,531			
Total ...	63,590	5,78,229	Total ...	63,590	5,78,229

63. This canal is wholly intended for navigation, and its revenues are entirely dependent on the tolls levied on boats, the receipts from which during the year amounted to Rs. 62,317, or Rs. 18,623 more than in 1882-83. The canal was re-opened on the 15th of April 1883, after a closure extending over three months for silt clearance.

64. Particulars regarding the traffic for the last ten years are given in the tables following:—

## COMPARISON OF TRAFFIC.

PARTICULARS.	1874-75.	1875-76.	1876-77.	1877-78.	1878-79.	1879-80.	1880-81.	1881-82.	1882-83.	1883-84.
Miles of canal open ...	29	29	29	29	29	29	29	29	29	29
Toll collections ...	52,209	52,540	44,572	60,971	59,723	44,918	53,338	45,848	43,694	63,317
Rate of toll per mile of canal	1,800'31	777'24	1,536'97	2,102'42	2,059'41	1,548'89	1,839'20	1,581'	1,507'	2,160'
Number of boats ...	15,437	10,958	22,824	23,882	22,969	16,311	21,783	20,057	17,445	22,728
Tonnage of boats, exclusive of empties ...	1,31,569	68,003	1,31,492	1,58,433	1,64,688	1,20,021	1,52,781	1,33,020	1,32,884	1,96,767
Passenger carried ...	4,184	3,906	3,108	1,932	3,623	3,061	3,531	3,286	3,510	.....
Estimated value of traffic ...	28,76,209	15,30,440	19,92,042	31,30,503	41,55,353	25,86,031	23,34,731	21,19,855	23,83,244	36,42,299

## CLASSIFICATION OF GOODS.

PARTICULARS.	1874-75.	1875-76.	1876-77.	1877-78.	1878-79.	1879-80.	1880-81.	1881-82.	1882-83.	1883-84.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Articles of food ...	87,525	37,852	84,248	1,01,230	1,05,697	8,423	80,901	79,448	46,163	64,358
Stimulants ...	3,004	805	1,900	706	1,719	783	2,606	6,622	2,767	3,179
Clothing ...	305	40	189	117	341	93	428	1,200	6	520
Staples of manufacture ...	971	1,341	1,630	1,202	2,839	1,129	1,294	2,646	381	1,214
Building materials ...	3,182	3,758	8,076	6,828	8,601	73,444	12,303	2,401	749	1,792
Fuel ...	1,143	1,678	1,045	768	1,729	1,164	6,214	2,701	6,935	833
Cooking utensils ...	330	434	297	250	388	319	426	.....	132	112
Miscellaneous ...	35,099	22,004	34,107	47,321	42,773	28,744	30,549	37,900	1,306	6,628

65. There has, it will be noted, been an improvement in most of the items enumerated in the above table. The greater part of the traffic is at present towards Calcutta, the Superintending Engineer stating that out of a gross tonnage of 196,767 of all kinds of goods carried, 130,286 tons were consigned towards that place and the remainder 66,481, about one-third, took the opposite direction.

66. No material increase in the receipts from this canal is likely to occur until considerable improvements are carried out. An estimate providing for a new lock at Kalinuggur, dredging plant, and for deepening the canal so far as to provide a minimum depth of 6½ feet of water at low tides has been received, but



returned to the Superintending Engineer for revision. The matter is of considerable importance at present, as it is probable that this canal, which has for many years yielded a small surplus over working expenses, would pay interest on capital if the long and frequent closures for silt clearance could be avoided. When the Orissa coast canal, of which the Hidgelee tidal canal forms the first part, is opened, the need for its remodelling so as to bring it up to the standard of the remainder will become urgent. As last year remarked, the present Kalinugger lock is 100 feet long, whilst all the remaining locks on this as well as those on the Orissa coast canal are 150 feet in length.

67. The tables below shew the receipts and working expenses of this canal for the last ten years:—

REVENUE RECEIPTS.

YEAR.	Water-rates.	Navigation.	Miscellaneous.	Total.
	Rs.	Rs.	Rs.	Rs.
1874-75	13	52,209	669	52,891
1875-76	.....	22,540	395	22,935
1876-77	.....	44,572	464	45,036
1877-78	.....	60,971	1,309	62,280
1878-79	.....	59,723	1,070	60,793
1879-80	.....	44,918	863	45,781
1880-81	.....	53,338	1,149	54,487
1881-82	.....	45,848	1,446	47,294
1882-83	.....	43,694	1,338	45,032
1883-84	.....	62,317	1,273	63,590

WORKING EXPENSES.

PARTICULARS.	1875-76.	1876-77.	1877-78.	1878-79.	1879-80.	1880-81.	1881-82.	1882-83.	1883-84.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Maintenance, works, and repairs	26,756	7,637	22,469	16,599	30,607	18,901	19,478	29,400	32,094
Establishments	8,033	1,793	5,406	3,854	8,794	2,289	4,407	6,775	7,588
Tools and plant	1,642	429	164	.....	.....	1,444	1,834	1,302	2,784
Total	36,431	9,859	28,039	20,453	39,401	22,634	25,899	37,507	43,366
Navigation establishment	2,607	2,571	2,465	2,727	2,883	2,956	2,869	2,973	3,215
Leave and pension allowances	.....	.....	.....	.....	.....	.....	1,300	1,327	1,512
Total working expenses	39,038	12,430	30,504	23,180	42,284	25,590	29,084	41,807	48,093

68. The net revenue of the canal was Rs. 15,497 against Rs. 3,135 in 1882-83; it was really considerably more, as Rs. 23,706 of the charge for maintenance was on account of silt clearance actually carried out in the previous year.

• SONE CANALS.

69. The capital, interest, and revenue accounts of these canals are given below:—

I.—CAPITAL ACCOUNT.

HEADS OF ACCOUNT.	Outlay during 1883-84.	Outlay to end of 1883-84.
<b>DIRECT CHARGES.</b>	Rs.	Rs.
I.—Works	4,28,707	1,74,37,708
II.—Establishment	81,365	49,35,378
III.—Tools and plant	89,813	19,70,595
IV.—Suspense accounts	(—)9,078	2,13,260
<b>Total</b>	5,90,807	2,45,56,941
V.—Less receipts on capital account	592	3,00,751
<b>Net total</b>	5,90,215	2,42,56,190
<b>INDIRECT CHARGES.</b>		
Capitalization of abatement of land revenue	41	37,361
Loss by exchange	2,774	77,277
Leave and pension allowances	11,391	8,40,208
<b>Total indirect charges</b>	14,206	9,54,846

## II.—INTEREST ACCOUNT.

		Rs.
Interest charges to end of 1882-83	...	83,07,908
Ditto for 1883-84	...	9,58,443
Total interest charges to end of 1883-84	...	92,66,351

## III.—REVENUE ACCOUNT (ACTUALS).

	EXPENDITURE.			RECEIPTS.	
	During 1883-84.	To end of 1883-84.		During 1883-84.	To end of 1883-84.
<i>I.—Maintenance and Repairs.</i>	Rs.	Rs.		Rs.	Rs.
Works	2,75,984	19,70,264	Water-rates	4,84,209	30,21,175
Compensation	351	2,449	Navigation	85,193	4,11,476
Establishment	63,477	5,17,160	Miscellaneous	34,405	2,65,355
Tools and plant	34,983	60,127			
Total Maintenance	3,74,795	25,50,000			
<i>II.—Revenue management.</i>					
Irrigation establishment	1,14,005	6,11,355			
Navigation establishment	20,248	95,485			
Total	1,34,253	7,06,840			
<i>III.—Refunds of Revenue</i>					
	5,429	12,603			
Total working expenses	5,14,477	32,69,443			
Profit	89,330	4,28,563			
Total	6,03,807	36,98,006	Total	6,03,807	36,98,006

70. The expenditure and earnings for the year 1883-84 are shewn in the statement following:—

EXPENDITURE.		EARNINGS.	
	Rs.		Rs.
<i>I.—Maintenance and Repairs.</i>			
Works	2,75,984	Water-rates	7,42,311
Compensation	351	Navigation	85,193
Establishment	63,477	Miscellaneous	34,405
Tools and plant	34,983		
Total Maintenance	3,74,795		
<i>II.—Revenue management.</i>			
Irrigation establishment	1,14,005		
Navigation ditto	20,248		
Total	1,34,253		
<i>III.—Refunds of Revenue.</i>	5,429		
Total working expenses	5,14,477		
Profit	3,47,432		
Total	8,61,909	Total	8,61,909



71. The lengths of canal and distributaries open and areas commanded and which can be irrigated are shown in the table below:—

NAME OF CANAL.	Navigable canal.	Branch canal.	Distributaries.	Area under command.	AREA WHICH CAN BE IRRIGATED.		Total area which can be irrigated.
					Khureef.	Rubbee.	
	Miles.	Miles.	Miles.	Acres.	Acres.	Acres.	Acres.
Eastern main and Patna canal ... ..	86½	.....	311	406,155	112,640	151,200	263,840
Arrah canal ... ..	74	71½	466	618,354	132,800	178,200	311,000
Western main and Buxar canal ... ..	58½	77½	305	704,000	135,840	210,600	346,440
Total ... ..	219	148½	1,082	1,728,509	381,280	540,000	921,280

72. The area shown as commanded is the full extent over which water could be led from the canals, no deductions being made for village sites or waste land. Assuming that only 500 acres per square mile is cultivated, the area given will be reduced to 1,361,151 acres. The figures in the column "area which can be irrigated" are obtained by multiplying the full supply of the canals by 80, for the area which can be irrigated during the khureef season, and 3,000 cubic feet which is taken as the supply available in average years during the rubbee season by 180 for the area then irrigable. Colonel Heywood considers that the duty on the khureef season should be reduced to 70 acres per cubic foot, and he also says that on the 16th February 1884 the supply in the Sone river was 1,868 cubic feet per second only, which at the high duty of 180 acres per foot would suffice for the irrigation of 336,240 acres only. In dry years the area which could be irrigated reduced as suggested would be 792,240 acres.

The increase in length of distributaries during the year was 6½ miles, the fractional differences in the lengths of canals compared with last year are due to errors in former returns, 53 miles of new distributaries were in progress, but had not been completed at the close of the year.

73. The state of the circle as regards village channels is shewn in the table following:—

	Total length of village channels completed.	Area commanded.	Total number of outlets.	Number of permanent outlets.
	Miles.	Acres.	No.	No.
Arrah Division ... ..	173	1,23,046	1,860	12
Buxar Division ... ..	733	1,34,418	2,623	303
Eastern Sone Division ... ..	455	84,767	1,342	92
Total 1883-84 ... ..	1,361	3,42,231	5,825	407
Total 1882-83 ... ..	1,186	2,45,308	4,950	248

Of these channels 134 miles were constructed by Government officers on applications made under Act III (B.C.) of 1876, and at the close of the year 34 miles were in progress.

74. The areas assessed with water-rates during the year and that preceding are given in the table below:—

CROP.	1882-83.	1883-84.	Increase.	Decrease.
	Acres.	Acres.	Acres.	Acres.
Khureef ... ..	65,514	134,732	69,218	.....
Rubbee ... ..	15,999	99,304	83,305	.....
Sugarcane ... ..	15,275	6,732	.....	8,543
Hot-weather irrigation ... ..	2,481	8,524	6,043	.....
Five years' lease ... ..	74,555	101,322	26,767	.....
Total ... ..	173,824	350,614	185,333	8,543
Total increase ... ..	.....	176,790	.....	.....

75. The area irrigated was more than double that watered in 1882-83, and in excess of any year to date. Dividing the area under five years' lease as

suggested by the Superintending Engineer, the figures below shew the acreage compared with the maximum areas irrigated in previous years—

	1883-84.	Acre.	Acre.
Khureef	...	215,790	134,208 in 1877-78.
Rubbee	...	109,436	124,818 in 1880-81.
Sugarcane and hot-weather crops	...	25,388	46,909 in 1881-82.

76. By divisions the areas irrigated in each of the last three years is shewn in the table below:—

YEAR.	EASTERN SONE DIVISION.					ARRAH DIVISION.					BUXAR DIVISION.					TOTAL FOR ALL DIVISIONS.					
	Kharif.	Rabbee.	Sugarcane.	Five years' leases.	Hot-weather.	Kharif.	Rabbee.	Sugarcane.	Five years' leases.	Hot-weather.	Kharif.	Rabbee.	Sugarcane.	Five years' leases.	Hot-weather.	Kharif.	Rabbee.	Sugarcane.	Five years' leases.	Hot-weather.	Grand total.
	Acre.	Acre.	Acre.	Acre.	Acre.	Acre.	Acre.	Acre.	Acre.	Acre.	Acre.	Acre.	Acre.	Acre.	Acre.	Acre.	Acre.	Acre.	Acre.	Acre.	Acre.
1880-81 ...	17,510	10,378	1,775	.....	...	74,537	31,796	15,897	.....	...	42,161	8,116	5,455	.....	...	134,208	50,290	23,127	.....	.....	207,625
1881-82 ...	12,256	7,004	701	6,830	2,295	26,138	21,917	14,402	33,942	12,164	16,966	7,874	6,788	2,468	6,335	55,355	36,795	21,891	43,240	20,794	178,075
1882-83 ...	15,691	2,026	1,436	11,136	2,481	28,162	8,002	7,936	53,030	...	21,661	5,971	5,903	10,389	...	65,514	15,990	15,276	74,555	2,481	173,824
1883-84 ...	28,769	7,261	59	18,620	92	53,511	43,082	3,195	66,372	7,778	52,432	48,961	3,479	26,330	654	134,732	99,304	6,732	101,322	8,524	350,614

77. The extension of irrigation was due to a serious deficiency in the rainfall of August and October. The following table of rainfall and extract from the Superintending Engineer's report comparing the year 1883 with the years 1873, 1875, and 1877, shows the extreme value of canal irrigation in such seasons:—

"MONTH."	1873.			1875.			1877.			1883.		
	Patna.	Arrah.	Buxar.	Patna.	Arrah.	Buxar.	Patna.	Arrah.	Buxar.	Patna.	Arrah.	Buxar.
	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.
August ...	11.78	10.76	8.10	8.37	12.32	17.07	7.20	3.74	3.05	7.53	5.43	5.40
September ...	0.94	2.42	1.60	5.36	2.89	4.51	2.79	1.78	1.56	5.01	4.06	6.47
October ...	0.00	0.00	0.00	0.03	0.00	0.62	0.13	2.70	3.92	0.40	0.55	1.03
Total ...	12.72	13.18	9.70	13.76	15.21	22.20	10.12	8.22	8.53	12.94	10.04	12.90

In 1873, the whole rice crop died off in Shahabad;

„ 1875, the appearance of the crops was nearly as bad as in 1873;

„ 1877, the transplanting of the late rice was never effected over large areas, and

„ 1883, the rice crop died extensively where irrigation either from canals or ahurs was not available.

It is quite clear, taking the following averages of the four years:—

12.36 inches at	...	...	...	Patna
11.66 „	...	...	...	Arrah
13.33 „	...	...	...	Buxar

that the rainfall in 1883 was not sufficient by itself, as was found to be the case, to allow of the maturing of the late rice.”

78. The statements below give the rainfall for each division separately for both the khuriff and rubbee seasons, the figures are the average of observations at the head-quarters of each canal sub-division:—

#### KHUREEF SEASON

MONTHS.	EASTERN SONE DIVISION.				ARRAH DIVISION.				BUXAR DIVISION.			
	1880-81.	1881-82.	1882-83.	1883-84.	1880-81.	1881-82.	1882-83.	1883-84.	1880-81.	1881-82.	1882-83.	1883-84.
	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.
August ...	15.39	13.49	9.84	4.05	14.82	15.67	9.00	5.43	7.88	14.28	7.41	2.37
September ...	2.24	4.55	4.83	4.33	3.60	4.12	4.38	4.06	2.23	2.72	5.77	5.47
October ...	4.91	3.87	4.47	0.08	4.14	6.78	4.99	0.55	3.87	5.31	4.99	0.81
Total ...	22.54	21.91	19.14	9.04	22.56	28.57	18.37	10.04	15.98	22.31	18.17	8.65

#### RUBBEE SEASON

	1880-81.	1881-82.	1882-83.	1883-84.	1880-81.	1881-82.	1882-83.	1883-84.	1880-81.	1881-82.	1882-83.	1883-84.
	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.
October ...	4.91	3.87	4.47	0.08	4.14	6.78	4.99	0.55	3.87	5.31	4.99	0.81
November ...	0.12	0.00	1.27	0.00	0.39	0.00	1.77	0.00	0.25	0.00	1.86	0.00
December ...	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.00
Total ...	5.03	3.87	5.74	0.08	4.54	6.78	6.76	0.55	4.73	5.31	6.85	0.81



79. The area irrigated during the khureef season was measured by the powers of the canal to supply water, and unfortunately this difficulty was intensified by the occurrence of a breach in the main western canal on the 23rd August, which caused a complete stoppage of supply for nine days. The consequence was that the crops towards the tails of the distributaries suffered severely for want of water. The cause of the breach has never been satisfactorily ascertained, but a regulator has since been built at the bifurcation of the Arrah and main western canals, and the whole system can never again be paralyzed by a breach in one canal.

The effect of the breach on the revenues of the year was disastrous, wholesale applications for remission being made, which will be further adverted on under that head.

80. The usual statement showing the crops irrigated follows:—

NAME OF CROP.	EASTERN SONE DIVISION.		ARRAH DIVISION.		BUXAR DIVISION.		TOTAL.	
	1882-83.	1883-84.	1882-83.	1883-84.	1882-83.	1883-84.	1882-83.	1883-84.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
Rice ... ..	15,691	28,661	27,456	52,786	21,482	52,094	61,629	133,541
Indigo ... ..	.....	.....	321	168	.....	6	321	174
Gardens ... ..	.....	.....	1	4	.....	.....	1	4
Mhadol ... ..	.....	108	384	553	179	352	563	1,013
Hot-weather ... ..	2,481	92	.....	7,778	.....	654	2,481	8,524
Sugarcane ... ..	1,436	58	7,936	3,195	5,903	3,479	15,275	6,732
Rubbee ... ..	1,467	6,467	7,612	42,556	5,841	48,829	14,920	97,832
Gardens ... ..	7	8	1	7	6	30	14	45
Opium ... ..	552	786	389	819	124	102	1,065	1,407
Five years' leases ... ..	11,136	18,620	53,030	56,372	10,389	26,330	74,555	101,322
Total ..	52,776	54,890	97,130	163,938	43,924	131,876	173,824	350,614

Five years' leases ... { Rice ... .. 81,058 }  
 { Rubbee ... .. 10,182 } Approximately.  
 { Sugarcane ... .. 10,132 }

The area leased was 260,187 acres, the excess being areas either irrigated in excess of, or without permit.

From the table below it will be seen that the leases are only a rough guide as to the areas actually watered, except in the case of five years' leases:—

	ACRES IN 1879-80.		ACRES IN 1880-81.		ACRES IN 1881-82.		ACRES IN 1882-83.		ACRES IN 1883-84.	
	Irrigated.	Leased.	Irrigated.	Leased.	Irrigated.	Leased.	Irrigated.	Leased.	Irrigated.	Leased.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
Annual khureef ... ..	41,132	53,105	134,208	105,750	55,355	43,916	65,514	49,249	134,732	93,478
" rubbee ... ..	62,266	34,581	50,290	28,660	36,795	19,070	15,669	18,479	50,304	53,425
" sugarcane ... ..	27,158	18,668	23,127	13,395	21,861	13,848	15,275	8,157	6,732	5,968
Five-year leases ... ..	.....	.....	.....	.....	43,240	42,810	74,555	76,305	101,322	102,310
Hot-weather " ... ..	.....	.....	.....	.....	20,704	.....	2,481	1,343	8,524	7,006
Total ...	130,556	306,354	207,025	147,844	178,075	120,544	173,824	148,533	350,614	260,187

The most satisfactory feature of the large increase in irrigation is the extension of the area under agreement for five years.

The proportion of flow to lift irrigation was 90 to 10, as against 95 to 5 in 1882-83.

81. The Superintending Engineer gives the duty of the water utilized as follows:—

	Khureef.	Rubbee.
• Eastern Sone division ... ..	60	53
Arrah division ... ..	94	78
Buxar " ... ..	97	91

The whole area under irrigation during the year was 350,614 acres. Of this 8,524 acres were hot-weather crops, and must be eliminated, taking  $\frac{4}{5}$ ths of the five-year leases as khureef and the remainder  $\frac{1}{5}$ th as rubbee and the 6,722 acres sugarcane in both crops, the area under irrigation in the khureef season was 222,522 acres and in the rubbee season 126,300 acres. The average discharge entering the two main canals for the four months July to October,

was 3,031 cubic feet per second, and in the five months, November to March, 1,924 cubic feet per second, the duty taking the figures on the water entering the canals was therefore  $73\frac{1}{2}$  acres per cubic foot in the khureef and  $65\frac{1}{2}$  acres per cubic foot in rubbee season. In one selected distributary, the Bhojepore, the duty is given as 88 acres per cubic foot in the khureef and 103 acres per cubic foot in the rubbee season.

82. At the commencement of the year there was a balance of Rs. 3,11,665 due on account of water-rates, and the assessments of the year amounted to Rs. 7,42,311, making a total of Rs. 10,53,976. Of this sum Rs. 4,84,209 was collected, and Rs. 1,45,974 remitted, a balance of Rs. 4,23,793 remaining due at the end of the year. The heavy remissions were mainly owing to irrecoverable balances of former years being written off, but the breach on the canal, mentioned in paragraph 80, also necessitated heavy remissions, and the increase on the arrear balance is chiefly owing to attempts to avoid payment on the ground of the non-supply of water during the nine days on which the canal was wholly closed. The accident was most unfortunate: there was a heavy demand for water at the time, and there is no doubt that the crops on lands supplied from the tails of the distributaries suffered severely, as they had not received any share in the watering in progress, and before the water again became available the crops had been damaged. The area so affected was, however, limited compared with that injured by the want of rain in October.

83. Of the remissions Rs. 83,946 were on account of the assessments of the year 1883-84, and the balance Rs. 62,028 from the demand of former years. The amount remitted is further divisible into Rs. 52,392 written off as irrecoverable by orders of the civil officers, and Rs. 93,582 remitted for causes affecting the assessment.

The amounts written off as irrecoverable are mostly balances of years anterior to 1882-83, which it was found for various reasons to be impossible to collect. The remissions made by the Engineers were very largely due to the breach in the main western canal, and do not include the whole loss caused by that accident, Rs. 16,226 having, in the Arrah division alone, been struck out of the demand statements before their despatch to the Collector.

84. The Superintending Engineer at page 3 of his report gives a full account of the proceedings of the local officers in consequence of the temporary failure of supply; but, as before observed, this was scarcely the main cause of the short crops, which was the late leasing of large areas already injured by drought, which could not be supplied with water in time to more than partially save the crops. As an illustration of this it may be noted that out of 78,116 acres of annual leases in the khureef season, no less than 47,853 acres were leased in the months of September and October after the occurrence of the breach.

The matter was personally investigated by Mr. Levinge, Chief Engineer, the result being that it was determined not to press for water-rates where the supply of water had not succeeded in saving the crops, and eventually the following orders were passed by the Lieutenant-Governor:—

“I.—No hot-weather water-rates will be charged.

“II.—The rate to be charged in villages where there are generally indifferent crops of rice will be for khureef Rs. 1-4 instead of Rs. 1-14 per bigha.

“The fact of there being indifferent crops to be determined on a consideration of—

1stly.—The water-supply available during the time when there was the greatest demand.

2ndly.—On the actual produce as stored in the threshing floors.

3rdly.—On the khusrahs showing that in the village there are many fields in which the rice died.

“III.—No water-rates are to be charged on fields shown in the khusrahs as dead or (where the information has been noted) as unlikely to yield a crop exceeding 3 maunds per bigha.

“IV.—Where it can be shown that the rice crops in a village have been very bad, say not exceeding 3 maunds per bigha, generally no water-rates are to be charged.”

85. As already mentioned, effective measures to prevent an accident, such as occurred in 1883-84, have been taken, but the gradual substitution of khureef for rubbee crops has rendered the canals unable to irrigate more than a proportion of the area for which water is required in seasons of drought.



86. A statement giving particulars of the demands and collections in the last five years follows:—

YEAR.	DEMAND.			Remission.	Net demand.	Collection.	Balance.	Percentage of collection to current demand.
	Arrears.	Current.	Total.					
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1879-80	3,04,111	4,69,200	7,73,311	10,517	7,63,094	4,41,716	3,18,378	94.7
1880-81	3,18,378	5,34,874	8,53,252	10,725	8,42,527	3,72,066	4,64,261	70.7
1881-82	4,64,261	6,29,739	10,94,000	53,221	10,40,779	6,03,330	4,36,849	95.9
1882-83	4,36,849	4,62,301	8,99,150	21,026	8,78,124	5,66,465	3,11,659	122.5
1883-84	3,11,665	7,42,311	10,53,976	1,45,974	9,08,002	4,84,206	4,23,793	65.2

87. The increase in the arrear balances is to be viewed with regret; but, as remarked by the Collector of Shahabad, "the circumstances attending the work of collection were of an unusually unfavourable nature, for which allowances have to be made." The Superintending Engineer agrees that the difficulties experienced were exceptional, as will be seen from the following extract from his report:—

"Notwithstanding these extensive remissions, a very large number of complaints of failure of crop were and are still being filed.

I am informed by the Special Deputy Collector that at the time of the promulgation of the Government order as to remission and when the ryots began to understand what those orders were, they very generally in this division at once stopped voluntary payments, and the collections which were going on satisfactorily received a sudden check.

The ryots received the impression that they would all get off any payment for khureef. They proceeded to file petitions, are still withholding payments, and in many instances are lodging appeals to the Collector against the decisions of the canal officers.

This withholding of payments and general filing of complaints is the most prominent in the Agean sub-division, where there appears to be a combination of villagers against Government. While remaining silent at the time of measurement, many villages have now come forward in a body, and declare that not only did their annual lease crops die, but even those under five years' lease for which it is always the first care of the irrigation officers to secure a supply when demanded.

So far as investigation on these complaints has gone at present, the allegations of the ryots as to a general destruction of their irrigated crops are not borne out by the facts elicited.

But there are numerous appeals, the ryots employing clever mooktyars in Arrah who take every advantage afforded them by the law."

88. The balances in the various districts on the 1st of April 1883 and 1st April 1884 are shown below:—

	1st April 1883.	1st April 1884.
	Rs.	Rs.
Shahabad	2,55,552	3,16,806
Patna	28,872	66,524
Gya	27,741	40,463
Total	3,11,665	4,23,793

A special enquiry into the administration of the Sone canals partly with reference to these arrears is now in progress under orders contained in the Government of India's letter No. 1831, of date the 11th July 1884, forwarding a despatch on the subject.

89. The collections of the present year are up to the 1st of October Rs. 2,53,164 against Rs. 1,46,400 in 1882-83, so that the effect of the increase in irrigation on the receipts is now being felt.

90. The cost of the revenue establishment employed during the year and that preceding is shown in the table below:—

	1882-83.		1883-84.	
	Amount.	Percentage on collections.	Amount.	Percentage on collections.
	Rs.		Rs.	
Permanent and temporary establishments, such as zilladars, ameens, &c.	35,034	6.19	42,106	8.69
Establishment employed under Collectors	41,971	7.40	41,724	8.62
Headmen's fees	28,878	5.10	30,175	6.21
Total	1,05,883	18.69	1,14,005	23.54

The figures for 1882-83 differ from those given in the revenue account for that year, as the headmen's fees paid by civil officers are now included in the item "establishment employed under Collectors." The higher cost of establishment is due to the increased area assessed, the water-rates on which are now in course of collection: on the area irrigated the cost of establishment was  $\frac{105,883}{178,824} =$  annas 9.75 per acre in 1882-83 and  $\frac{114,005}{350,614} =$  annas 5.20 per acre in 1883-84.

91. The usual tables giving the cost of measuring the crop and preparing the demand statement are appended, and it will be found on reference to last year's report that there has been a considerable reduction in the cost per acre:—

*Cost of measuring crops.*

DIVISION.	FIVE YEARS' LEASE.			SUGARCANE.			KHUREEFF.			RUBBER.		
	Cost.	Area.	Rate per acre.	Cost.	Area.	Rate per acre.	Cost.	Area.	Rate per acre.	Cost.	Area.	Rate per acre.
	Rs. A. P.	Acres.	Rs. A. P.	Rs. A. P.	Acres.	Rs. A. P.	Rs. A. P.	Acres.	Rs. A. P.	Rs. A. P.	Acres.	Rs. A. P.
Eastern Sone ...	141 2 1	7,488	0 0 3'64	2 5 3	58	0 0 7'7	786 13 5	28,861	0 0 5'23	153 6 9	7,261	0 0 4'05
Arrah ...	143 0 0	4,520	0 0 6'07	899 0 0	10,973	0 0 10'48	2,009 0 0	53,511	0 0 7'20	1,369 0 0	43,082	0 0 6'19
Buxar ...	636 13 6	15,941	0 0 7'67	253 13 3	3,479	0 0 1'2	1,318 2 8	53,106	0 0 4'70	1,408 4 11	48,961	0 0 6'52

*Cost of preparing demand statements.*

DIVISION.	FIVE YEARS' LEASE.			SUGARCANE.			KHUREEFF.			RUBBER.		
	Cost.	Area.	Rate per acre.	Cost.	Area.	Rate per acre.	Cost.	Area.	Rate per acre.	Cost.	Area.	Rate per acre.
	Rs. A. P.	Acres.	Rs. A. P.	Rs. A. P.	Acres.	Rs. A. P.	Rs. A. P.	Acres.	Rs. A. P.	Rs. A. P.	Acres.	Rs. A. P.
Eastern Sone ...	232 9 1	7,488	0 0 5'96	3 13 1	58	0 1 0'75	1,502 10 6	28,861	0 0 8'66	254 6 2	7,261	0 0 6'72
Arrah ...	492 0 0	4,520	0 1 9'19	1,298 0 0	10,973	0 1 16'71	3,916 0 0	53,511	0 1 2'05	4,018 0 0	43,082	0 1 5'90
Buxar ...	636 13 6	15,941	0 0 7'6	223 13 3	3,479	0 1 35	1,408 4 11	53,106	0 0 5'90	1,318 2 8	48,961	0 0 5'16

92. The attendance of the patwaris at the measurements is still unsatisfactory, but since the close of the year canal officers have been vested with the powers of a Collector under section 35 of Regulation VII of 1822, and it is hoped that this will prove of considerable assistance in securing their attendance. The Collector of Shahabad, nevertheless, still considers that a change in the law will be necessary, observing that "the difficulty of making them do the work assigned to them by the Irrigation Act remains the same as before." It is clear, however, that much can be done by good personal management, as the percentage of attendance on the villages measured was 97.7 per cent. in the Ramnugger sub-division and 86.0 per cent. in the Nasrigunge sub-division, against a general average of 71 per cent.

93. The number of complaints is a subject that is now engaging attention. No less than 9,364 applications for remission were disposed of during the year. The point which gives most trouble is the tendency to delay in making objections, until all trace of irrigation has passed away, and then to allege that no intimation that water-rates were due had been received. Revised instructions for canal officers have lately been issued, which give increased facilities for disposing of such claims at the time of measurement, and an effort will be made to insist more strictly on the observance of the rule requiring that complaint shall be made within a month of the demand being made. But it has been held that the demand alluded to in the rule is that made by the Collector, probably months after the irrigation is over, and the date of which is quite unknown to the canal officer who disposes of the objection. On the other hand, the demand statements for various causes, disputes about irrigation, difficulties in ascertaining the names of cultivators, &c., are themselves frequently late, and the Collector cannot make the demand as promptly as he otherwise would. The Khureef demand statements are due in the Collector's office on the 15th of December, whilst in October not only is new irrigation in progress, but in seasons of scarcity the canal officer's unceasing attention is devoted to the regulation of the water-supply, so that the most may be made of what is available, and that



it may not be run to waste or be used in filling *aharas*. The increase from 74,555 acres to 101,322 acres in the five-years' leases will do something towards improving matters, as the difficulties mentioned above, with the exception of changes of names, disappear in respect to lands so leased.

94. The orders regarding crop experiments have not been completely carried out during the year, none being returned from two of the sub-divisions of the Arrah division: the average of the rice experiments gives  $3\frac{3}{4}$  maunds of rice and  $6\frac{3}{4}$  maunds of straw as the excess produce of lands irrigated by the canal.

95. The revenue under the head "Navigation," since the opening of the canals, is shown below:—

YEAR.	EASTERN MAIN SERIES.			WESTERN MAIN SERIES.			Total.	Total tollage only.
	Number of miles open.	Tollage receipts.	Transport service receipts.	Number of miles open.	Tollage receipts.	Transport service receipts.		
		Rs.	Rs.		Rs.	Rs.	Rs.	Rs.
1876-77	86½	9,401	...	86½	4,852	...	4,852	4,852
1877-78	86½	18,570	...	86½	17,373	...	26,774	26,774
1878-79	86½	14,112	5,046	86½	10,762	...	29,332	29,332
1879-80	86½	27,337	8,512	96½	13,402	7,209	39,850	27,604
1880-81	86½	20,199	11,012	130½	12,482	12,814	61,145	39,819
1881-82	86½	22,679	12,196	130½	24,944	27,961	93,116	54,143
1882-83	86½	22,663	6,305	132½	16,625	19,705	71,205	39,304
1883-84	86½	...	...	132½	25,469	30,856	85,193	48,032

96. In the following table the tollage assessments are divided under the heads "Government" and "Private":—

YEAR.	EASTERN MAIN AND PATNA CANALS.			WESTERN MAIN CANAL.			ARRAH CANAL.			BUXAR CANAL.			TOTAL.		
	Private tolls.	Government tolls.	Total.	Private tolls.	Government tolls.	Total.	Private tolls.	Government tolls.	Total.	Private tolls.	Government tolls.	Total.	Private tolls.	Government tolls.	Total.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1877-78	2,778	7,083	9,861	1,194	2,711	3,905	7,174	5,440	12,614	...	...	...	11,146	15,254	26,400
1878-79	13,762	4,911	18,673	1,003	1,168	2,171	6,729	2,424	9,153	...	...	...	21,409	7,445	28,854
1879-80	13,555	813	14,368	1,417	1,597	3,014	10,767	1,132	11,899	...	...	...	25,739	1,595	27,334
1880-81	20,529	942	21,471	2,247	215	2,462	6,847	1,358	8,205	316	82	398	35,939	2,597	38,536
1881-82	27,377	1,746	29,123	2,208	2,159	4,367	15,875	523	16,398	5,417	1,065	6,482	43,878	5,483	49,361
1882-83	22,147	625	22,772	1,469	1,139	2,608	16,943	254	17,197	2,092	452	2,544	36,562	2,500	39,062
1883-84	21,590	606	22,196	2,615	105	2,720	15,641	1,309	17,010	5,476	117	5,593	45,332	2,258	47,590

97. The small decrease in the tolls received on account of boats using the Eastern main and Patna canals is due to the long closure, which extended from the 11th of April to the 30th of June, whilst the increase on the Western main series is owing to there having been only a short closure, from the 6th to the 16th of April.

98. Further particulars comparing the traffic for the last five years and the description of goods carried, are given in the tables below:—

	1879-80.	1880-81.	1881-82.	1882-83.	1883-84.
Number of miles open at the end of the year	182½	216½	216½	218½	219
Toll collections	27,604	39,819	54,143	39,304	48,032
Rate of toll per mile	151	183	249	180	217
Boats, including empties	6,942	7,482	10,688	7,615	8,822
Measured tonnage of boats, including empties	66,286	69,597	1,13,971	78,951	95,472
Estimated value of cargo	34,32,626	33,73,946	44,53,586	37,96,467	52,54,476

## Description of goods carried—

		1879-80.	1880-81.	1881-82.	1882-83.	1883-84.
		Tollage.	Tollage.	Tollage.	Tollage.	Tollage.
		Rs.	Rs.	Rs.	Rs.	Rs.
Articles of food	...	8,402	8,236	15,839	9,634	14,951
Stimulants	...	793	1,648	1,853	2,010	1,888
Clothing	...	214	279	111	81	40
Staples of manufacture	...	4,257	8,495	11,320	9,456	11,712
Building materials	...	2,346	2,989	2,538	2,157	2,542
Live-stock	...	.....	.....	.....	.....	.....
Fuel	...	171	153	276	197	388
Cooking utensils and other domestic implements	...	53	.....	.....	.....	550
Bamboos and bullahs	...	9,503	3,291	8,681	6,077	6,666
Miscellaneous	...			8,261	6,948	6,599

99. No information regarding the upward or downward traffic is given by the Superintending Engineer, but the following table, extracted from his report, is useful as showing the position of the trade centres :—

DIVISION.	Toll station.	RECEIPTS.			REMARKS.
		1881-82.	1882-83.	1883-84.	
		Rs.	Rs.	Rs.	
Eastern Sone Division.	Baroon ... ..	14,211	11,852	11,769	On the Sone at the head. A large village on the Sone.
	Doodnagar ... ..	4,173	2,391	3,386	
	Arwal ... ..	1,148	1,325	769	At the railway near Dinapore. At the end of the canal where it enters the Ganges.
	Bikrun ... ..	264	367	176	
	Khagoul ... ..	554	960	663	
	Deegah ... ..	6,098	5,250	4,951	
Received in Arrah Division.	Divisional office ... ..	2,450	627	849	On the Sone at the head. A large village on the Arrah canal.
	Dehree ... ..	3,413	2,274	3,938	
	Nasirganj ... ..	1,785	1,072	932	Near the East Indian Railway and at the capital town of Shahabad.
	Chowree ... ..	548	269	251	
	Arrah ... ..	10,107	7,403	11,407	
Buxar Division	Samareen ... ..	436	358	513	The nearest point to the town of Sasseram.
	Bedadi ... ..	8,876	4,627	7,980	
	Nokha ... ..	1,330	374	1,267	Near the railway and the outfall on to the Ganges.
	Nutwar ... ..	.....	84	1,074	
	Siknour ... ..	1,210	82	143	
	Buxar ... ..	73	453	831	

100. The cost of the establishment for working the locks and collecting tolls was Rs. 13,051 for the year, against Rs. 13,133 expended in that preceding, and Rs. 13,174 in 1881-82.

101. The receipts from the transport service during the year 1883-84 were Rs. 37,161, being an increase of Rs. 5,260 over the amount received in the year previous; the expenses were, however, Rs. 32,475, or Rs. 6,485 in excess, so that the net profits were Rs. 4,686 only compared with Rs. 5,911 for 1882-83.

102. An endeavour was made to dispose of the steamers to a private company, but no acceptable offer was received; the service on the Patna Canal was, however, transferred to a contractor, from the 21st of January 1884, on his paying the usual tolls and Rs. 150 per month as hire of the steamer *Umpire*. No complaints have been received as to the manner in which this steamer was managed by him and a fresh arrangement has been entered into since the 20th October 1884, under which he has taken charge of the entire service.

103. The miscellaneous receipts during 1883-84 amounted to Rs. 34,405, being a falling off, compared with the previous year, of Rs. 12,602. The decrease is wholly in the item "Miscellaneous," which includes the profits on the manufacturing operations of the Dehree workshops, from which Rs. 3,550 was received against Rs. 19,359 in 1882-83.



104. The statement below gives the receipts and working expenses of the Sone canals for the last three years:—

	1881-82.	1882-83.	1883-84.
	Rs.	Rs.	Rs.
<i>Receipts—</i>			
Water-rates	6,03,930	5,66,465	4,84,209
Navigation receipts	93,116	71,205	85,193
Miscellaneous	39,246	47,007	34,405
<b>Total</b>	<b>7,36,292</b>	<b>6,84,677</b>	<b>6,03,807</b>
<i>Working expenses—</i>			
Maintenance	3,28,032	4,02,841	3,74,795
Irrigation establishment	1,14,283	1,05,883	1,14,005
Navigation ditto	13,678	19,880	20,248
Refunds	1,329	1,237	5,429
	<b>4,57,322</b>	<b>5,29,841</b>	<b>5,14,477</b>
<b>Net profit</b>	<b>2,78,970</b>	<b>1,54,836</b>	<b>89,330</b>

Notwithstanding a decrease in the working expenses, there has been a falling off of Rs. 65,506 in the net revenue derived from these canals.

105. The causes of this unsatisfactory result have already been commented on, but it may be well to again state that so far as water-rates are concerned, in which the receipts have fallen off by Rs. 82,256 as compared with 1882-83, the cause is not a falling off in the area under irrigation, on which there has, in fact, been a large increase, the assessments on which are now being collected.

106. The cost per mile of maintaining the canals and distributaries comprised in the system is given in the statement below:—

NAME OF CANAL.	Name of division.	1881-82.		1882-83.		1883-84.	
		Number of miles.	Cost per mile.	Number of miles.	Cost per mile.	Number of miles.	Cost per mile.
Eastern Main ...	Eastern Sone ...	7½	2,323'0	7½	2,655'0	7½	4,367'3
Western Main ...	Arrah ...	9	4,044'0	9	9,908'0	9	3,841'8
Buxar ...	Buxar ...	12½	219'0	12½	322'0	12½	162'0
Patna ...	Do. ...	44	178'0	45	346'0	45½	210'0
Arrah ...	Eastern Sone ...	79	377'0	79	578'0	79	492'2
Doomraon Branch ...	Arrah ...	65	396'0	65	375'0	65	387'3
Beheea Do. ...	Do. ...	40½	195'0	40½	166'0	40½	156'6
Chowsea Do. ...	Do. ...	30½	219'0	31	205'0	31	155'7
Gurra Chowbey Branch ...	Buxar ...	39½	84'0	39½	103'0	39½	97'0
	Do. ...	38	49'0	38	49'0	38	123'0
	Arrah ...	44½	51'0	45½	57'6	46½	41'6
Distributaries ...	Buxar ...	88½	69'0	243½	57'0	300½	55'1
	Eastern Sone ...	.....	.....	311	43'4	311	48'1

107. The increased expenditure on the Main Eastern Canal is owing to the closure of that canal from the 11th of April to the 30th of June for the purpose of clearing the silt which had accumulated in its bed. This was effected by hand, 44 ¼ lakhs of cubic feet of silt having been removed; at the same time 56 ¼ lakhs were taken out of the Patna Canal. The Main Western Canal was not closed during the year, and the decreased costs of maintenance is due to no expenditure being incurred on silt clearance by hand.

108. The Superintending Engineer gives the amounts entered in the table below as the average cost of maintaining the canals and distributaries in the circle:—

	Rs.	
The Eastern Main Canal costs to maintain	3,128	per mile.
„ Western Main Canal (Arrah division)	5,828	ditto.
„ Ditto (Buxar do.)	234	ditto.
„ Other main canals—		
Arrah and Patna divisions	407 to 413	ditto.
Buxar division	243	ditto.
„ Branch canals	86 to 183	ditto.
„ Distributary channels	44 to 74	ditto.

109. The total quantity of silt removed from the canals by dredgers was 61,35,619 cubic feet. Details shewing the quantity excavated and cost for each canal are appended:—

	Cubic feet.	Cost.	Rate.
		Rs.	Rs. A. P.
Eastern Main Canal ...	11,77,214	4,052	3 7 0
Patna Canal ...	56,24,979	14,575	2 9 5
Sone river bed ...	9,48,470	1,842	1 13 6
Western Main Canal ...	33,79,219	24,560	8 15 10
Head lock, Dehree ...	72,073	213	2 15 6
Arrah Canal ...	5,58,643	3,603	8 11 5

The rate in the case of the Main Western Canal is high, as it includes the cost of removing the silt from the barges, carrying it over a high spoil bank, and depositing it on the berm beyond.

110. The cost of weed clearance during the year was Rs. 8,965 only against Rs. 14,377 in 1882-83, and Rs. 21,163 in 1881-82.

#### SARUN CANALS.

111. The capital and revenue accounts of these canals, which have been constructed from provincial funds, are given below:—

##### I.—CAPITAL ACCOUNT.

PARTICULARS.	Outlay during 1883-84.	Outlay to end of 1883-84.
	Rs.	Rs.
<b>DIRECT CHARGES.</b>		
Works ...	3,586	4,75,786
Establishment ...	825	1,63,487
Tools and plant ...	1,492	25,244
Suspense balances ...	—9,907	.....
Total ...	—4,004	6,64,517
Less receipts on capital account ...	.....	498
Net outlay ...	—4,004	6,64,019
<b>INDIRECT CHARGES.</b>		
Capitalized abatement of land revenue ...	.....	97
Leave and pension allowances ...	116	26,990
Total indirect charges ...	116	27,087

##### II.—REVENUE ACCOUNT—(ACTUALS).

	EXPENDITURE.			RECEIPTS.	
	During the year.	To end of the year.		During the year.	To end of the year.
	Rs.	Rs.		Rs.	Rs.
Works (extensions and improvements) ...	.....	.....	Water-rates ...	22,057	51,460
Repairs and maintenance ...	20,659	88,729	Navigation ...	13	262
Establishment ...	4,751	20,404	Miscellaneous ...	971	3,743
Tools and plant ...	—2,009	—7,890	Total receipts ...	23,041	55,465
Total ...	23,401	1,01,243	Deficit ...	1,025	49,348
<b>INDIRECT CHARGES.</b>					
Leave and pension allowances ...	665	3,570			
GRAND TOTAL ...	24,066	1,04,813	GRAND TOTAL ...	24,066	1,04,813

Note.—The account shewing the accumulated charges for interest is not included in accordance with the Government of India, Public Works Department, Circular No. IV, P. W., dated 1st May 1884.



112. The receipts from these canals for the year were Rs. 5,014 in excess of that previous, and the working expenses Rs. 10,882 less, the result being a deficit in the year's operation of Rs. 1,025, against Rs. 16,921 in 1882-83. The income earned by these canals is entirely derived from a guarantee amounting to Rs. 23,000 given by the landholders interested, who manage the irrigation within the limits of their own *dehats*, receiving water-rates not exceeding one rupee per acre from the cultivators.

113. The area irrigated during the year is returned by the Collector of Sarun as 21,121 acres, and Rs. 5,030 is noted in the guarantors' returns as the amount recovered by them.

114. The rainfall table below, extracted from the Superintending Engineer's report, shows that in September and October the rainfall was deficient, and canal water accordingly valuable:—

Rainfall Table.

MONTH.				Moniara.	Gopalguni.	Hatwa.	Sadowa.	Jogapur.	Barhoja.	Rajapatti.	Arrowah.	Sitalpur.
				Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.
April	1883	...	...	0'20	0'10	.....	.....	0'1	.....	.....	0'10	0'50
May	"	...	...	1'07	1'31	0'63	0'15	.....	.....	.....	0'15	.....
June	"	...	...	4'13	4'30	5'60	7'75	4'8	6'85	9'65	10'40	10'70
July	"	...	...	7'62	10'62	8'38	7'80	15'0	8'90	7'50	12'20	13'20
August	"	...	...	5'13	7'78	4'98	6'60	3'2	5'52	7'10	3'05	7'30
September	"	...	...	0'63	2'95	2'83	2'50	3'9	2'05	4'50	3'30	2'00
October	"	...	...	.....	.....	.....	.....	.....	.....	.....	0'07	0'40
November	"	...	...	.....	.....	.....	.....	.....	.....	.....	.....	.....
December	"	...	...	.....	.....	.....	.....	.....	.....	.....	.....	.....
January	1884	...	...	.....	.....	.....	.....	.....	.....	.....	.....	.....
February	"	...	...	.....	0'07	0'19	0'05	.....	.....	.....	.....	.....
March	"	...	...	.....	0'05	.....	0'10	.....	.....	.....	0'07	.....
Total				18'78	27'78	22'81	24'95	27'00	23'32	28'75	29'34	34'10
Total of 1882-83				No returns.		49'60	45'36	27'55	No returns.		22'00	No return.
" 1881-82				49'83	No return.	41'12	44'95	44'90	47'10	No return.	44'15	.....

115. The operations of the year are described by the Executive Engineer, Mr. Faulkner, as follows:—

"Grave fears were entertained that the rice and rubber crops would fail, as there was not the usual rainfall in September and the early part of October. Early in October applications came in fast from the ryots for water from the canals. As usual, the ryots held off till the last moment, expecting the rain would come daily. To irrigate the country thoroughly, is necessary to throw the water from the Rupan Chap Sota into the canals by stopping off the discharge in the Sota. Great efforts were made in October to effect this object, but the discharge in the Sota was greater than could be carried off by the canals, and it was not until the 27th of the month, after four previous unsuccessful attempts, that a bund was thrown across. By this time it was too late for the rice crops on the lower canals, i.e., the Gandaki, Dhanai, and the Gangni. It was possible, however, to irrigate from the Daha through the Sota in October, and later from the head cut, and a large tract was irrigated in a rough-and-ready way by constructing dams with escape channels at every two miles or so, which threw the water over the country. A small area of rubber was damaged by this means, but the rice crops received water and were saved."

116. These canals are not provided with distributaries, and when water is required temporary dams are thrown across the *Sota*, an old river channel. There is a disposition on the part of the guarantors to arrange for the construction of permanent weirs and distributaries, but the branch of the river Gunduck, on which the head sluice is situated, shows signs of closing up, and it is not considered advisable to incur further expenditure until the course which the main stream will take is more fully apparent.

#### CALCUTTA AND EASTERN CANALS.

117. THESE canals are managed by the Board of Revenue, Lower Provinces, who submit a separate yearly report on their administration, that for 1883-84

was reviewed in this Department resolution of date the 28th November 1884.

Capital and revenue accounts were opened on the 1st of April 1883, and the following is an abstract of these accounts up to the 1st April 1884:—

	Rs.
<i>Capital cost—</i>	
Direct charges	51,92,444
Indirect charges	59,090
Grand total	52,51,534
Receipts to the 1st April 1884	1,75,62,487
<i>Working expenses—</i>	
Direct charges	63,70,953
Indirect charges	1,34,007
	65,04,960
Charges for interest	(a) 65,61,871
	1,30 66,831
Balance net revenue	44,95,656

(a) Interest is calculated *pro forma*. It is not exhibited in the Administrative account under Government of India public Works Department Circular No. 4P—W, dated 1st May 1884.

These accounts have not yet been finally approved, there has been considerable difficulty in determining the distribution of the capital and revenue charges, and it is only since 1861-62 that the accounts have been kept in this Department.

118. The canals have so far been a very profitable undertaking, and it is proposed to extend their usefulness by carrying out several urgently required improvements, partly in connection with the new Kidderpore Docks. About 65 lakhs of rupees will be required, and some arrangement by which the cost of these works can be met from funds obtained by loan will be necessary, as during the last six years the canals have, after crediting receipts, cost the province Rs. 7,75,777, whilst really earning Rs. 2,38,701, besides working expenses and interest charges.

119. The gross revenue of the year shews a slight decrease of Rs. 93 compared with that preceding; this is attributable to the partial failure of the jute and rice crops of 1883 in the districts served by the canal; in the remaining items of traffic there has been an increase due to the great improvements, which have recently been made in the canals: the tollage in the two articles mentioned above was Rs. 76,457 less than that received in 1882-83.

The revenue accounts for the two years are contrasted below:—

	Receipts.	Working expenses, direct and indirect.	Interest charges.	Net revenue.
	Rs.	Rs.	Rs.	Rs.
1882-83	5,64,194	3,26,897	3,26,897	2,37,297
1883-84	5,64,101	2,32,031	2,32,031	3,32,070

The diminution in working expenses is due to the maintenance charges being confined mostly to repairs; in 1882-83 several improvements, notably widening the canal between Dhappa and the railway bridge, and replacing the suspension by girder bridges, were carried out and charged to the revenue account of the canals.

120. The table following gives detailed information regarding the traffic passed through the canals during 1882-83, and the year now under review.



MONTH.	Number of boats.		Weight of cargo.		Value of cargo.		TONNAGE OF BOATS.				Tollage.	
							Tons.		Maunds.			
	1882-83.	1883-84.	1882-83.	1883-84.	1882-83.	1883-84.	1882-83.	1883-84.	1882-83.	1883-84.	1882-83.	1883-84.
CIRCULAR CANAL.	No.	No.	Mds.	Mds.	Rs.	Rs.	Tons.	Tons.	Mds.	Mds.	Rs. A P.	Rs. A P.
April ...	4,990	5,018	7,94,591	12,58,925	16,78,766	18,65,750	58,643	1,05,383	16,42,025	29,51,025	13,988 14 0	23,334 14 9
May ...	4,690	4,742	5,86,311	10,57,710	10,76,318	25,62,131	45,034	80,329	12,60,975	22,49,325	10,741 1 3	17,455 10 0
June ...	5,080	5,647	6,42,301	12,67,105	9,94,345	22,87,607	47,614	94,274	13,33,100	26,37,800	11,553 14 9	21,680 14 0
July ...	5,410	6,202	9,01,345	12,25,595	18,24,160	23,05,850	55,747	92,835	15,66,525	25,97,925	13,424 14 3	21,594 0 3
August ...	5,730	7,538	6,81,572	15,13,742	11,29,786	23,27,481	62,303	1,16,403	17,44,525	32,59,775	14,748 4 3	24,753 8 3
September ...	7,680	9,113	13,06,800	19,35,980	29,60,525	84,76,411	88,776	1,41,680	24,35,750	39,67,075	21,387 5 9	32,373 8 3
October ...	8,360	10,416	13,74,505	20,42,242	33,46,995	48,86,390	93,689	1,69,010	26,22,275	47,32,525	22,490 6 0	40,878 1 3
November ...	7,711	11,005	12,75,070	24,16,685	30,91,790	66,90,945	94,223	1,89,685	26,38,225	52,94,375	22,397 1 3	44,402 3 0
December ...	8,335	9,529	13,96,195	17,88,259	25,12,220	54,68,676	1,62,387	1,40,494	28,72,450	43,18,378	24,803 2 0	37,260 15 3
January ...	9,510	12,543	19,88,943	24,32,802	38,45,625	1,09,71,983	1,54,044	2,48,262	42,97,350	69,62,125	37,405 2 0	55,286 13 9
February ...	9,990	9,044	24,39,769	19,99,940	41,81,210	28,43,990	1,71,911	1,60,600	48,13,800	49,16,425	41,889 6 6	49,042 6 0
March ...	10,070	7,480	26,47,680	17,88,537	56,25,260	42,98,824	2,07,077	1,95,442	57,98,650	63,95,800	47,813 12 9	38,910 13 3
Total Circular Canal	87,356	99,168	1,60,32,180	2,07,67,363	3,02,66,810	5,05,05,938	11,81,648	17,41,737	3,30,76,650	4,92,72,450	2,82,233 4 9	4,07,005 13 0
TOLLY'S NULLAH.	No.	No.	Mds.	Mds.	Rs.	Rs.	Tons.	Tons.	Mds.	Mds.	Rs. A P.	Rs. A P.
April ...	6,621	4,095	6,36,537	5,09,370	8,05,168	7,28,711	71,672	49,976	20,09,825	14,06,775	18,739 4 3	9,519 6 6
May ...	6,629	4,060	6,84,891	6,20,905	7,85,287	14,10,400	64,232	44,013	18,96,175	18,62,625	12,862 11 3	7,398 2 9
June ...	7,138	4,559	11,21,253	6,38,892	22,84,679	19,19,896	84,713	45,905	25,63,700	12,85,075	10,069 11 6	7,876 6 6
July ...	8,565	5,170	12,17,248	6,26,580	27,07,560	8,69,808	90,873	44,341	26,35,975	12,41,800	17,677 7 0	8,080 8 3
August ...	9,920	6,195	12,19,968	7,52,239	44,72,796	36,02,256	89,139	54,519	24,96,190	15,26,975	17,414 0 0	10,151 15 0
September ...	10,221	8,264	12,88,285	8,52,279	16,43,509	20,38,353	95,282	60,335	26,88,325	16,90,925	19,970 9 3	11,390 7 0
October ...	11,164	7,717	11,89,501	8,60,659	16,64,327	21,45,945	1,14,779	63,682	32,14,375	17,83,925	24,381 9 0	10,392 11 9
November ...	12,675	8,606	15,92,641	6,82,545	26,02,353	13,35,110	1,38,614	47,596	38,80,295	13,32,909	30,168 8 9	12,091 13 3
December ...	13,938	8,648	15,17,598	4,06,325	22,41,288	13,42,242	1,41,945	60,121	39,75,300	16,70,000	30,822 8 0	12,523 1 3
January ...	15,802	10,191	18,40,335	6,78,063	27,62,171	17,94,467	1,67,815	76,063	46,98,375	20,70,175	35,346 7 6	14,548 13 9
February ...	11,183	7,757	17,31,244	6,97,772	30,61,528	15,70,454	4,05,381	58,395	1,13,93,424	16,78,075	20,486 14 6	12,886 9 3
March ...	8,906	5,951	8,38,176	7,87,711	13,13,413	14,47,232	55,748	64,740	17,37,175	18,13,500	14,795 2 6	11,556 8 9
Total Tolly's Nullah	1,22,662	82,133	1,48,77,672	80,19,080	2,63,45,820	1,96,93,974	15,20,093	6,69,686	4,30,89,044	1,88,62,459	2,53,734 13 6	1,28,416 8 0
GRAND TOTAL	2,10,018	1,81,301	3,09,09,852	2,87,77,043	5,66,10,630	7,01,99,912	27,01,741	24,11,423	7,61,65,694	6,81,34,909	5,35,968 2 3	5,35,422 5 0

## GENERAL REMARKS.

121. The net income received during the year from the canals in Bengal, which have been constructed by Imperial Funds, viz., those classed as Productive Public Works, amounted to Rs. 1,00,447, against a budget estimate of Rs. 1,16,000. The actual receipts and working expenses (direct charges) amounted respectively to Rs. 11,69,841 and Rs. 10,69,394, against the budget estimate of Rs. 12,00,000 and Rs. 10,84,000.

122. The following statement shews the financial results calculated by earnings:—

	Rs.
Orissa canals	(—)95,477
Midnapore canal	65,908
Hidgelee tidal canal	17,009
Sone canals	3,47,432
Total	3,34,872

131. The approximate value of the crops irrigated was as follows:—

		Area irrigated.	Value of crop.
Orissa Canals—		Acres.	Rs.
Khureef	...	47,085	5,64,408
Rubbee	...	1,381	80,607
Perennial	...	344	86,817
Total	...	48,760	7,31,832
Midnapore Canal—			
Khureef	...	97,919	33,30,838
Sone Canals—		Area irrigated.	Value of crop.
		Acres.	Rs.
Paddy	...	1,70,212	33,30,245
Sugarcane	...	18,557	6,30,084
Opium	...	1,408	3,19,633
Other crops	...	1,04,065	21,74,741
Five-year lease khureef	...	37,005	6,11,576
Ditto rubbee	...	12,918	2,10,052
Ditto sugarcane	...	6,449	1,27,194
Total	...	3,50,614	74,03,525
GRAND TOTAL	...	4,97,293	1,14,66,195

123. The state of the canal plantations compared with the previous year is shown in the table below:—

CANALS.	1882-83.			1883-84.		
	Trees 12 feet high and above.	Saplings between 4 and 12 feet.	Seedlings.	Trees 12 feet high and above.	Saplings between 4 and 12 feet.	Seedlings.
	No.	No.	No.	No.	No.	No.
Orissa ...	38,291	22,693	61,535	44,479	24,936	70,703
Midnapur ...	3,570	3,921	3,533	3,942	3,242	3,104
Sone ...	60,104	44,590	103,955	67,298	45,191	89,917
Total ...	101,965	71,204	169,023	115,719	73,369	163,724
Increase ...	.....	.....	.....	13,754	2,165	—5,299

J. M. McNEILE, *Lieut.-Col., R.E.*,

*Chief Engineer.*

*The 28th November 1884.*





	PRODUCTIVE PUBLIC WORKS.						WORKS OTHER THAN PRODUCTIVE PUBLIC WORKS.										GRAND TOTAL.	REMARKS.
	Works in operation.						Works in abeyance.				Works suspended.		Works in progress.					
	Orissa Canals.	Midnapore Canal.	Hidgell's Tidal Canal.	Sone Canals.	Total.	Tiphoor Project.	Hooghly Project.	Total.	Damoodah Project.	Sarun Project.	Orissa Coast Canal.	Total.	Total.					
NET REVENUE.																		
For the year	{ From direct returns only From direct and indirect re- turns ... ..	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
		(-) 167,632	40,698	15,407	61,648	50,473	.....	.....	.....	.....	(-) 11,025	.....	(-) 11,025	(-) 11,025	(-) 11,025	49,448		
To end of year	{ From direct returns only From direct and indirect re- turns .. ..	(-) 15,50,138	(-) 1,44,145	1,40,849	2,40,103	(-) 115,19,351	.....	.....	.....	(-) 40,348	.....	(-) 40,348	(-) 40,348	(-) 40,348	(-) 115,08,609			
		(-) 15,50,138	(-) 1,44,145	1,40,849	2,40,103	(-) 115,19,351	.....	.....	.....	(-) 40,348	.....	(-) 40,348	(-) 40,348	(-) 40,348	(-) 115,08,609			
SIMPLE INTEREST AT 4 PER CENT ON CAPITAL OUTLAY (INCLUDING INTEREST WHILE WORKS WERE UNDER CONSTRUCTION.)																		
For the year	{ If credit be taken for direct returns only If credit be taken for indirect returns also ... ..	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
		8,60,762	8,21,645	70,808	9,58,443	21,60,768	.....	.....	.....	.....	.....	.....	.....	.....	.....	21,60,768		
To end of year	{ If credit be taken for direct returns only If credit be taken for indirect returns also ... ..	1,00,87,923	40,56,439	10,58,535	99,00,351	(-) 115,19,351	.....	.....	.....	(-) 40,348	.....	(-) 40,348	(-) 40,348	(-) 40,348	(-) 115,08,609	2,44,59,229		
		1,00,87,923	40,56,439	10,58,535	99,00,351	(-) 115,19,351	.....	.....	.....	(-) 40,348	.....	(-) 40,348	(-) 40,348	(-) 40,348	(-) 115,08,609	2,44,59,229		
DIFFERENCE BETWEEN NET REVENUE AND INTEREST.																		
For the year	{ If credit be taken for direct returns only If credit be taken for indirect returns also ... ..	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
		(-) 13,77,424	(-) 2,50,853	(-) 55,411	(-) 18,90,739	(-) 21,10,285	.....	.....	.....	.....	(-) 1,025	.....	(-) 1,025	(-) 1,025	(-) 1,025	(-) 21,11,310		
To end of year	{ If credit be taken for direct returns only If credit be taken for indirect returns also ... ..	(-) 13,77,424	(-) 2,50,853	(-) 55,411	(-) 18,90,739	(-) 21,10,285	.....	.....	.....	(-) 1,025	.....	(-) 1,025	(-) 1,025	(-) 1,025	(-) 21,11,310	(-) 21,11,310		
		(-) 13,77,424	(-) 2,50,853	(-) 55,411	(-) 18,90,739	(-) 21,10,285	.....	.....	.....	(-) 1,025	.....	(-) 1,025	(-) 1,025	(-) 1,025	(-) 21,11,310	(-) 21,11,310		
For the year	{ If credit be taken for direct returns only If credit be taken for indirect returns also ... ..	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
		(-) 1,35,44,081	(-) 1,42,30,574	(-) 19,17,677	(-) 180,26,248	(-) 2,68,18,580	.....	.....	.....	.....	(-) 40,348	.....	(-) 40,348	(-) 40,348	(-) 40,348	(-) 2,68,18,580		
To end of year	{ If credit be taken for direct returns only If credit be taken for indirect returns also ... ..	(-) 1,35,44,081	(-) 1,42,30,574	(-) 19,17,677	(-) 180,26,248	(-) 2,68,18,580	.....	.....	.....	(-) 40,348	.....	(-) 40,348	(-) 40,348	(-) 40,348	(-) 2,68,18,580	(-) 2,68,18,580		
		(-) 1,35,44,081	(-) 1,42,30,574	(-) 19,17,677	(-) 180,26,248	(-) 2,68,18,580	.....	.....	.....	(-) 40,348	.....	(-) 40,348	(-) 40,348	(-) 40,348	(-) 2,68,18,580	(-) 2,68,18,580		

(a) Exclusive of Rs. 427 paid in England.



Rainfall, Weather, and State and Prospects of the Crops.

*Statement showing Rainfall, Weather, and State and Prospects of the Crops in the different Districts of Bengal, as reported to Government during the week ending the 27th December 1884.*

No.	District, and date of return.	Rainfall at Sudder Station in inches.	Character of the weather, state and prospects of the crops, and state of health at date.
BENGAL.			
Western Districts.			
BURDWAN DIVN.	1 Burdwan, Dec. 27 '84	Nil	Weather—cool and cloudy. <i>Amun</i> paddy continues to be harvested; outturn varies from 2 to 12 annas. Sugarcane and <i>rubbee</i> crops continue to be promising. Common rice is generally selling at from 15 to 18 seers per rupee. General health is on the whole good. A few cases of fever are reported from three thanas of the Sudder sub-division.
	Cutwa ...	0'16	
	Ranigunge ...	0'07	
	2 Bankoora, " 27 "	Nil	
	3 Beerbhoom, " 27 "	A few drops of rain fell one day.	
PRESIDENCY DIVN.	4 Midnapore, " 27 "	0'01	Weather—cloudy, cold, and fine. <i>Amun</i> paddy is being reaped. There was a slight fall of rain in some places in the interior, but enough as to do any good to the crops, which are, however, getting on fairly well. Sugarcane cultivation getting on well; in the Nulhati police station it is being cut. In the Rampore Haut sub-division harvesting of <i>amun</i> paddy is nearly completed. The other winter crops are doing well. Price of new rice is still high. Public health good, except a few cases of fever and cholera in some parts of the district.
	5 Hooghly, " 27 "	Nil	
	Howrah, " 29 "	Nil	
	Central Districts.		
	6 24-Pergha, Dec. 29 '84	Nil	
PRESIDENCY DIVN.	7 Nuddea, " 27 "	Nil	Weather—seasonable, but cloudy towards the latter part of the week. Prospects of standing crops continue satisfactory. <i>Amun</i> paddy is being harvested with an outturn decidedly over an average crop. Public health is generally good, though isolated cases of cholera and fever are reported from the Diamond Harbour and Basirhat sub-divisions.
	8 Khoolna, " 27 "	Nil	
	9 Jessore, " 27 "	Nil	
	10 Moorshedabad, " 27 "	0'13	
	RAJSHAHY DIVN.	11 Dinapore, Dec. 26 '84		Nil	Weather—seasonable. Harvesting of amun paddy still continues, fair outturn is expected, except in Patnitala thana, in which the outturn of paddy is very poor indeed. The prospects of other crops good. Rice selling at from 11 to 16 seers per rupee.
12 Rajshahye, " 27 "		Nil	
13 Rungpore, " 27 "		Nil	
14 Bogra, " 27 "		Nil	
15 Pubna, " 26 "		Nil	
DACC DIVN.	16 Darjeeling, " 27 "	Nil	Weather—cold. State and prospects of crops fair.
	17 Tulpigoree, " 27 "	Nil	
Eastern Districts.			
DACC DIVN.	18 Dacca, Dec. 26 '84	Nil	Weather—cold. Prospects of crops good; harvesting of <i>amun</i> paddy nearly completed. Cutting of sugarcane continues. Public health good.
	19 Furreedpore, " 27 "	Nil	
	20 Backergunge, " 25 "	Nil	
	21 Mymensingh, " 26 "	Nil	

No.	District and date of return.	Rainfall at Sudder Station in inches.	Character of the weather, state and prospects of the crops, and state of health at date.
<b>BENGAL.—<i>consolidated Eastern Districts.</i></b>			
CHITTAGONG DIVN.	22 Chittagong, Dec. 29 '84	Nil	Weather—seasonable. Prospects of crops good. Harvesting of <i>amun</i> paddy nearly finished with about a twelve-anna outturn. Prices of food-grains stationary. Sporadic cases of cholera throughout the district.
	23 Noakholly, „ 26 „	Nil	Weather—seasonable; clear with occasional foggy mornings. <i>Amun</i> paddy is still being reaped. Prospects of <i>rubbee</i> crops fair. Cholera reported from the interior.
	24 Tipperah, „ 25 „	Nil	Weather—seasonable. Prospects of crops continue to be favourable; outturn of <i>amun</i> paddy is estimated at 12 annas. <i>Rubbee</i> crops are flourishing. Prices of food-grains slightly falling. Cholera abating, and public health in other respects good.
	25 Chittagong Hill Tracts, „ 23 „	Nil	Weather—seasonable, foggy in the mornings. Transplanting of tobacco is over. Sugarcane and other cold-weather crops are doing well. Paddy is being harvested.
	Hill Tipperah, „ 24 „	Nil	Weather—cold. Reaping of <i>amun</i> paddy nearly over with good outturn. Sowing of mustard, chillies and tobacco also nearly over. A few sporadic cases of cholera here and there, otherwise public health good.
<b>BEHAR.</b>			
PATNA DIVN.	26 Patna, Dec. 27 '84	Nil	Weather—cloudy during the latter part of the week. Harvesting of paddy and <i>jowar</i> still continues. <i>Rahur</i> and mustard look well. Prospects of <i>rubbee</i> crops good. Rain wanted in some places. Poppy crop is growing well. Public health good.
	27 Gya, „ 27 „	Slight rain.	Weather—cloudy. Harvesting of paddy proceeding. The prospects of <i>rubbee</i> crops excellent; poppy crop also is in a satisfactory state. Health good.
	28 Shahabad, „ 27 „	Nil	Weather—cool and cloudy. Prospects of <i>rubbee</i> crops favourable. Sugarcane pressing is still going on. Poppy crop is reported to be excellent and is well advanced for the season.
	29 Durbhunga, „ 27 „	Nil	Weather—seasonable. Harvesting of paddy continues. <i>Rubbee</i> crops coming on well. <i>Rahur</i> and mustard are flowering. Rain is wanted in some places. Tobacco and poppy crops look very promising. Prices of rice stationary; those of other grains slightly falling. Public health good.
	30 Mozufferpore, „ 27 „	Nil	Weather—seasonable. Harvesting of paddy still going on and a moderate outturn is expected. Prospects of both <i>rubbee</i> and opium crops continue favourable. Public health good.
BHAGULPORE DIVN.	31 Sarun, „ 27 „	Nil	Weather—bright and seasonable. Paddy is being harvested. Prospects of <i>rubbee</i> crops continue good. Condition of the poppy crop is excellent, young plants are looking very healthy. Prices falling. Public health good.
	32 Champaran, „ 27 „	Nil	Weather—seasonable. Prospects of standing crops continue good. <i>Aghani</i> paddy is being reaped. Prospects of poppy crop good. Public health fair. A few cases of fever are reported from the interior.
	33 Monghyr, Dec. 27 '84	Nil	<i>Aghani</i> paddy is being reaped; the outturn is estimated at 8 to 10 annas. <i>Rubbee</i> crops promising. Poppy crop is doing well. Public health good.
	34 Bhagulpore, „ 27 „	Nil	Weather—cloudy and warmer than usual. Paddy is being cut. <i>Rubbee</i> crops are generally very good, but a little rain would do much good. Prices stationary. Public health good.
	35 Purneah, „ 27 „	Nil	Weather—seasonable; rain wanted. <i>Aghani</i> paddy nearly a full crop in the Kishengunge sub-division, a little over half in the Arrareah sub-division, but very little in the Sudder sub-division. Winter crops very good in the Sudder and the Arrareah sub-divisions, but they are little grown in the Kishengunge sub-division.
ORISSA DIVN.	36 Maldah, „ 27 „	Nil	Weather—cold and fair. Harvesting of winter paddy continues; average outturn is not expected to be more than an eight-anna crop. Price of common rice ranges from 12 to 16 seers per rupee. Prospects of <i>rubbee</i> crops still not bad. Cholera has made its appearance at places in the interior; otherwise general health good.
	37 Sonthal Pergas, „ 27 „	Nil	Weather—cloudy for one or two days of the week. Cutting of <i>aghani</i> paddy now well advanced. Prospects of <i>rubbee</i> crops good, but they would be improved by a fall of rain.
	38 Cuttack, Dec. 26 '84	0.38	Weather—cool and cloudy at times. Reaping of <i>sarad</i> on low land busily going on everywhere with an average outturn. The rain on the 23rd injured <i>rubbee</i> crops to some extent. Common rice selling at from 16 to 20 seers per rupee in the town and 25 seers, on an average, in the interior. Public health generally good, except that a few cases of intermittent fever are reported from the interior.
	39 Pooree, „ 25 „	0.38	Weather—getting cooler. Harvesting of <i>sarad</i> continues; <i>dalia</i> crops thriving; miscellaneous crops doing well. Common rice selling on an average at 24 seers 3 chittack per rupee in the Sudder sub-division and 26 seers 1 chittack in the Khorda sub-division. Cholera still prevails.
	40 Balasore, „ 26 „	Nil	Weather—cloudy. Reaping of paddy nearly finished, threshing has commenced. Sporadic cases of cholera and fever still continue in the interior.
<b>CHOTA NAGPORE.</b>			
South-West Frontier Agency.	41 Hazaribagh, Dec. 26 '84	Nil	Weather—clear and cold. Cutting of paddy nearly over. <i>Rubbee</i> crops doing well. Prospects of poppy in irrigated tracts good. Common rice selling at from 13 to 17 seers per rupee. General health good.
	42 Lohardugga, „ 27 „	0.10	Weather—cloudy for the last day or two. Rain wanted for <i>rubbee</i> crops in Palamow. Outturn of winter paddy in the Sudder sub-division is estimated at 14 annas. Prices stationary on the whole. Health good.
	43 Singbhoom, „ 26 „	Nil	Weather—bright and warm. Harvesting of paddy finished; outturn excellent. Cold-weather crops are doing well. General health good.
	44 Manbhoom, „ 27 „	0.08	Weather—cool and seasonable. Rain fell on the 23rd instant. Paddy nearly all reaped; outturn seems best in the west and south of the district; worst in pergunnah Bagda and in the neighbourhood (south-east); on the average a 9 to 12-anna crop may be secured. Sugarcane and other spring crops promise well. Coarse rice sold on the 27th instant in the Purulia market at 22½ seers per rupee. Cattle disease reported from Purulia and Ichagar.

Published for general information.

CALCUTTA, STATISTICAL DEPT.,  
The 30th December 1884.COLMAN MACAULAY,  
Secy. to the Govt. of Bengal.



## Results of the Meteorological Observations taken at the Alipore Observatory from 21st to 27th December 1884.

Month.	Date.	Maximum in sun.	Number of hours of bright sunshine.	Mean pressure barometer at 32° Fahr.	TEMPERATURE.				HYGROMETRY.				WIND.		Rain.	WEATHER.
					Mean.	Maximum.	Range.	Minimum.	Mean wet bulb.	Vapour tension.	Dew point.	Humidity.	Prevailing direction.	Miles recorded.		
1884.		°		Inches.	°	°	°	°	°	Inches	°	%			Inches.	
Dec.	21st	125.7	9.1	30.058	63.5	75.6	21.7	53.9	58.5	0.426	54.4	75	NNE and NNW ...	63	Nil.	Clear, =, d.
"	22nd	123.8	8.5	0.020	64.0	75.9	22.3	53.6	58.9	0.436	55.1	75	NNW and E by N	63	"	Chiefly clear, =, d.
"	23rd	125.6	4.0	0.028	65.2	74.6	19.9	54.7	60.6	0.472	57.3	77	E by N and ESE ...	73	Not measureable.	Chiefly cloudy, o, d, d.
"	24th	125.6	9.5	0.030	65.8	76.7	19.6	57.1	60.9	0.474	57.4	76	N and NW ...	63	Nil.	Clear.
"	25th	129.5	4.8	0.020	67.0	78.8	19.4	59.4	62.4	0.505	59.2	78	NW, and NW by N	9	"	Partially cloudy, =, d.
"	26th	131.4	8.8	0.016	68.7	78.5	20.1	58.4	61.1	0.465	58.9	72	N and NNW ...	78	"	Chiefly cloudy.
"	27th	120.4	7.3	0.003	65.6	76.4	17.6	58.8	60.0	0.447	55.8	73	NNW and WNW ...	69	"	Chiefly cloudy, d.

The mean pressure of the seven days	...	Inches	30.026
The average pressure of the corresponding period for 24 years, S. G.'s Office	...	...	30.039
The total number of hours of bright sunshine	...	Hours.	52.0
The maximum possible number of hours of sunshine	...	...	74.9
		°	
The mean temperature of the seven days	...	...	65.4
The average temperature of the corresponding period for 24 years, S. G.'s Office	...	...	67.3
The extreme variation of temperature	...	...	25.2
The maximum temperature	...	...	78.8
		Miles.	7
The highest velocity of the wind in one hour	...	...	7
		lbs.	
The highest pressure of wind on one square foot	...	...	Not measureable.
		%	
The mean relative humidity	...	...	75
The average relative humidity of the corresponding period for 24 years, S. G.'s Office	...	...	71

The total fall of rain from 21st to 27th December 1884 ... Not measureable.  
The average fall of the corresponding period for 24 years, S. G.'s Office... 0.01  
The total fall from 1st January to 27th December 1884 ... 62.61  
The average fall of the corresponding period for 24 years, S. G.'s Office ... 65.24  
The mean pressure, temperature, &c., are deduced from the traces of the Barograph and Thermograph.  
The maximum and minimum temperatures are obtained from self-registering thermometers. All the thermometers are verified, and the readings have been corrected to a standard constructed and verified at the Kew Observatory. They are exposed under a thatched shed open at the sides, and are suspended four feet above the ground.  
The barometer readings are corrected approximately to those of the standard Newman's No. 86 formerly at the Surveyor-General's Office.  
The hygrometric elements are obtained from Tables III, IV, and V of the official tables computed in the Meteorological Office, and based on Regnault's modifications of August's formula.  
The directions and the movement of the wind are taken from the trace of a Beckley's anemograph.  
The mouth of the rain-gauge is one foot above the ground.  
o overcast, d drizzling rain, d dew, = fog.

W. L. DALLAS,

For Meteorological Reporter to the Government of India.

METEOROLOGICAL OFFICE, INDIA;  
Calcutta, the 29th December 1884.

## Meteorological Report of the Province of Bengal

			STATION OBSERVATIONS.														
DISTRICT	Representative station.	AIR PRESSURE.			WIND.		TEMPERATURE.								Average humidity at 10 A. M.	Average cloud amount at 10 A. M. for week.	
		Mean barometric height, 10 A. M.	Mean reduced to sea-level.	Variation from mean.	Prevailing direction.	Mean wind velocity.	Highest during week.	Lowest during week.	Mean maximum temperature.	Mean minimum temperature of week.	Mean daily temperature of week.	Variation from normal mean of week.	Mean 10 A. M. temperature.				
ORISSA.	Pooree	Gopalpore*	30'086	30'116	—	N	264	75'2	68'0	74'5	61'0	67'8	—	71'5	74	4'7	
	False Point	False Point	30'097	30'119	—'013	NE	103	80'4	52'5	76'6	59'9	67'2	+1'7	72'3	71	5'8	
	Cuttack	Cuttack	30'042	30'126	+ '003	Calm	21	82'3	54'9	79'7	60'1	69'9	+0'4	72'1	62	3'7	
	Balasore	Balasore	30'078	30'139	—	NNW	105	81'5	50'5	78'5	55'1	66'8	—	71'6	55	0'9	
	South-West Midnapore	Saugor Island	30'100	30'127	—'004	NE	134	75'8	54'9	74'4	59'1	66'8	+1'0	70'5	71	4'1	
SOUTH-WEST BENGAL.	South 24 Pergunnahs...	Midnapore	29'985	30'141	—	N	60'0	82'3	51'7	77'8	55'1	66'5	—	71'6	57	2'6	
	24-Pergunnahs	Calcutta	30'100	30'131	0	NNE	69'0	78'6	53'8	75'9	58'1	66'0	+2'4	69'7	62	2'3	
	Howrah	Howrah	30'044	30'148	+ '010	NE & NW	35'7	80'2	54'5	77'4	56'6	67'0	+2'5	70'0	58	3'1	
	Hooghly	Hooghly	30'044	30'148	+ '010	NE & NW	35'7	80'2	54'5	77'4	56'6	67'0	+2'5	70'0	58	3'1	
	Burdwan	Burdwan	29'803	—	—	NE	53	79'7	51'5	76'8	54'7	65'8	—	68'4	60	3'7	
	Bankura	Bankura	29'803	—	—	NE	53	79'7	51'5	76'8	54'7	65'8	—	68'4	60	3'7	
	Beerbhoom	Ranigunge	29'803	—	—	NE	53	79'7	51'5	76'8	54'7	65'8	—	68'4	60	3'7	
	West Burdwan	Ranigunge	29'803	—	—	NE	53	79'7	51'5	76'8	54'7	65'8	—	68'4	60	3'7	
	Moorshedabad	Berhampore	30'065	30'134	+ '017	WSW	46'8	77'4	53'2	76'2	56'4	66'3	+1'4	69'1	70	1'6	
	Nuddea	Nuddea	30'065	30'134	+ '017	WSW	46'8	77'4	53'2	76'2	56'4	66'3	+1'4	69'1	70	1'6	
EAST BENGAL.	Jessore	Jessore	30'086	30'121	+ '011	Calm & N	31'0	79'2	51'0	77'3	53'8	65'6	+1'1	72'1	64	2'4	
	Khoolna	Khoolna	30'017	30'111	+ '019	NE	41'0	79'1	54'2	77'2	53'7	66'5	—0'1	69'6	76	1'3	
	Chittagong	Chittagong	30'017	30'111	+ '019	NE	41'0	79'1	54'2	77'2	53'7	66'5	—0'1	69'6	76	1'3	
	Chittagong Hill Tracts	Demagiri	30'076	—	—	Observations not received.	—	—	—	—	—	—	—	—	—	—	
	Backergunge	Barrisal	30'076	—	—	Observations not taken under order.	—	—	—	—	—	—	—	—	—	—	
	Noakholly	Noakholly	—	—	—	Calm	40'4	78'3	51'0	76'9	54'0	63'5	—	71'2	64	0	
	Furteedpore	Furteedpore	30'067	—	—	N	20'0	77'5	53'0	75'6	54'6	65'1	—	71'1	60	0'9	
	Dacca	Dacca	30'094	30'117	+ '028	N	21'0	79'3	54'1	77'5	55'5	66'5	+0'3	72'7	65	0'3	
	Commillah	Commillah	30'068	30'105	—	NW	13'9	78'4	52'1	77'8	53'3	65'5	—	71'3	68	0	
	Mymensingh	Mymensingh	30'036	—	—	NNE	50'0	75'4	46'1	74'8	47'6	61'2	—	—	—	104'4	
NORTH BENGAL.	Bogra and Pubna	Serajgunge	30'080	30'128	—	ENE	27'0	77'6	52'1	76'3	53'3	64'8	—	69'2	73	1'4	
	Bogra	Bogra	30'054	—	—	Calm	202'7	77'6	53'0	76'6	57'8	67'2	—	69'3	65	0'7	
	Rajshahye	Rampore Beaulieu	30'044	30'119	—	NE	11'6	76'6	48'7	72'6	59'7	61'6	—	69'0	67	0'6	
	Dinapore	Dinapore	30'015	30'141	—	ENE	40'2	77'1	48'8	76'3	50'4	63'2	—	69'5	64	0	
	Rungpore	Rungpore*	30'012	30'143	—	E & NE	27	77'0	48'0	75'7	49'8	62'8	—	68'2	76	1'3	
	Julpigoree	Julpigoree	29'830	30'130	—	E	53'3	77'7	48'1	74'9	50'1	62'5	—	67'9	65	1'0	
	Cooch Behar	Cooch Behar	23'067	—	—	Calm	—	47'6	33'1	45'5	33'8	39'7	—	42'6	87	6'1	
	Darjeeling Hill District	Darjeeling	30'007	30'140	+ '007	Calm	4'8	77'2	44'3	76'6	46'5	61'6	—0'1	65'1	80	1'4	
	Purneah	Purneah	30'007	30'140	+ '007	Calm	4'8	77'2	44'3	76'6	46'5	61'6	—0'1	65'1	80	1'4	
	North Bhagulpore	North Bhagulpore	30'007	30'140	+ '007	Calm	4'8	77'2	44'3	76'6	46'5	61'6	—0'1	65'1	80	1'4	
SOUTH BENGAL.	Mozufferpore	Durbhunga	29'986	30'163	+ '035	SW	36'0	74'4	51'4	73'6	53'3	63'4	+1'6	64'4	75	2'3	
	Durbhunga	Durbhunga	29'986	30'163	+ '035	SW	36'0	74'4	51'4	73'6	53'3	63'4	+1'6	64'4	75	2'3	
	Chumpanan	Motihari	29'903	30'144	—	ENE	76'3	75'0	41'5	73'7	45'9	59'8	—	63'2	70	4'1	
	Sarun	Chupra	29'942	—	—	Variable	14'9	75'5	46'8	73'2	51'3	62'3	—	68'1	66	3'3	
	Shahabad	Dehree	29'779	30'154	—	SE	115'6	76'5	50'0	73'7	55'4	64'6	—	65'1	68	3'7	
	Shahabad	Buxar	29'887	30'143	—	NW	79'6	77'4	46'9	73'9	52'5	63'2	—	66'9	63	3'9	
	Arrah	Arrah	29'913	30'119	—	ESE	17'8	75'3	45'0	73'9	49'5	61'7	—	65'4	66	1'9	
	Gya	Gya	29'736	30'131	—	Calm	21'3	75'3	45'1	76'8	46'8	61'8	—0'7	69'5	54	4'3	
	Patna	Bankipore	29'978	30'173	+ '020	E	31'2	74'9	49'2	72'8	53'1	63'0	+2'6	65'7	64	5'3	
	South Bhagulpore	Bhagulpore*	29'963	30'132	—	Calm	16'0	75'4	48'0	73'9	51'7	62'8	—	68'5	63	1'3	
SOUTH BENGAL.	Monghyr	Monghyr	29'963	30'132	—	Calm	16'0	75'4	48'0	73'9	51'7	62'8	—	68'5	63	1'3	
	Sonthal Pergunnahs	Doomka	29'618	—	—	N	49'9	79'0	40'6	76'6	52'7	61'7	—	67'1	79	1'4	
	Hazaribagh	Hazaribagh	28'962	30'136	+ '010	NW	92'6	73'4	49'8	70'7	52'9	61'8	+1'0	64'9	62	4'3	
	Lohardugga	Ranchee	27'945	30'145	—	—	—	74'0	49'4	70'3	50'4	60'4	—	64'6	61	5'0	
	Manucom	Manucom	27'945	30'145	—	—	—	74'0	49'4	70'3	50'4	60'4	—	64'6	61	5'0	
SOUTH BENGAL.	Chyebassa	Chyebassa	29'325	—	—	N	104'1	—	48'4	—	53'4	—	—	69'8	60	3'2	

\* Means for six days.

**Explanation.—Summary.**—The normal means of air pressure and temperature are the arithmetical averages or means of the readings during the same period. The humidity of the atmosphere is expressed as a percentage, saturated air being represented by 100. A clear sky is denoted by 0 and an overcast sky by 100. The rainfall, the normal means are the numerical means or averages of the rainfall in that district determined from the returns sent in by the sub-divisions. The total rainfall at the sub-divisional stations in the district sending in returns divided by the number of stations. A rainy day is one in which the rainfall is at least 0.01 inch.



# SUPPLEMENT TO THE CALCUTTA GAZETTE, DECEMBER 31, 1884.

for the week ending Friday, the 26th December 1884.

Rainfall of week at observing stations.	DISTRICT OBSERVATIONS.										Representative station.	DISTRICT.
	RAINFALL.											
	Of week.		Since 1st of month.			Since 15th May.			Average number of rainy days.	Normal number of rainy days.		
	Mean for district.	Normal mean.	Mean for district.	Normal mean.	Variation.	Mean for district.	Normal mean.	Variation.				
0.12	—	—	—	—	—	—	—	—	—	—	Gopalpore ...	Pooree
0.05	0.36	0.01	0.36	0.57	-0.21	49.85	57.69	-7.84	1.8	0.1	False Point ...	Cuttack
0.29	0.46	Nil	0.46	0.44	+0.02	48.11	52.66	-4.55	1.8	0.0	Cuttack ...	Balasore
Nil	0.08	Nil	0.08	0.23	-0.15	53.16	53.57	+2.59	0.5	0.0	Balasore ...	South-West
Nil	Nil	Nil	Nil	0.33	-0.33	69.59	61.93	+7.66	0.0	0.0	Saugor Island ...	South 24.
0.01	Nil	0.01	Nil	0.21	-0.21	43.01	50.02	-7.01	0.0	0.1	Midnapore ...	Midnapore
Nil	Nil	0.02	Nil	0.29	-0.29	49.03	51.07	-2.04	0.0	0.1	Calcutta ...	24-Per
Nil	0.05	Nil	0.05	0.15	-0.10	35.97	46.33	-10.36	0.3	0.0	Burdwan ...	How
0.07	0.01	Nil	0.01	0.19	-0.18	38.95	51.16	-12.21	0.3	0.0	Ranigunge ...	Hoogh
0.13	0.03	Nil	0.03	0.15	-0.12	35.45	49.74	-14.29	0.4	0.0	Berhampore ...	Burd
Nil	Nil	0.02	Nil	0.16	-0.16	36.42	49.48	-13.06	0.0	0.1	.....	Ban
Nil	Nil	0.02	Nil	0.28	-0.28	53.11	53.20	-0.09	0.0	0.1	Jessore ...	Be
Nil	Nil	Nil	Nil	0.58	-0.58	106.64	112.28	-5.64	0.0	0.0	Chittagong ...	We.
Nil	Nil	0.02	Nil	0.66	-0.66	62.66	86.39	-23.73	0.0	0.1	Demagiri ...	N
Nil	Nil	0.01	Nil	0.52	-0.52	83.11	76.77	+6.34	0.0	0.1	Barrisal ...	J
Nil	Nil	Nil	Nil	1.01	-1.01	95.44	110.96	-15.52	0.0	0.0	Noakholly ...	I
Nil	Nil	0.02	Nil	0.15	-0.15	43.88	56.05	-12.17	0.0	0.1	Furzedpore ...	B
Nil	Nil	0.03	Nil	0.25	-0.25	47.81	58.89	-11.08	0.0	0.2	Dacca ...	No
Nil	Nil	0.03	Nil	0.42	-0.42	64.15	71.33	-7.18	0.0	0.2	Commillah ...	Fur
Nil	Nil	0.01	Nil	0.18	-0.18	46.04	68.68	-22.64	0.0	0.1	Mymensingh ...	Dac
Nil	0.02	Nil	0.06	0.16	-0.10	37.79	55.01	-17.22	0.2	0.0	Serajgunge ...	
Nil											Bogra ...	
Nil	0.01	Nil	0.01	0.13	-0.12	34.67	53.24	-18.57	0.3	0.0	Rampore Beaulah ...	
Nil	Nil	Nil	0.01	0.18	-0.17	38.75	56.56	-17.81	0.0	0.0	Dinapore ...	
Nil	Nil	Nil	Nil	0.13	-0.13	49.70	75.53	-25.83	0.0	0.0	Rangpore ...	
Nil	Nil	Nil	Nil	0.20	-0.20	95.23	114.04	-18.79	0.0	0.0	Julpigoree ...	
Nil		0.02		0.24			152.31			0.1	Darjeeling ...	
Nil	Nil	Nil	Nil	0.06	-0.06	46.18	57.05	-11.47	0.0	0.0	Purnean ...	
											Mozufferpore	
Nil	Nil	0.01	Nil	0.03	-0.03	34.69	42.16	-7.47	0.0	0.1	Durbhunga	
Nil	Nil	Nil	Nil	0.02	-0.02	41.79	43.95	-2.16	0.0	0.0	Motihari	
Nil	Nil	0.03	Nil	0.04	-0.04	30.52	40.81	-10.29	0.0	0.2	Cau	
Nil											Dem	
Nil	Nil	0.05	Nil	0.06	-0.06	29.10	39.12	-10.02	0.0	0.2	Bux	
Nil											Arr	
Nil	Nil	0.05	Nil	0.05	-0.05	27.79	39.67	-11.88	0.0	0.3	Gy	
Nil	Nil	0.02	Nil	0.03	-0.03	29.00	40.56	-11.56	0.0	0.1	Be	
Nil	Nil	Nil	Nil	0.02	-0.02	31.05	41.99	-10.94	0.0	0.0	B	
0.02	Nil	Nil	Nil	0.08	-0.08	33.44	48.67	-15.23	0.0	0.0		
0.02	0.01	0.01	0.01	0.08	-0.07	34.11	46.61	-12.50	0.3	0.1		
	0.08	0.03	0.03	0.14	-0.06	37.66	47.23	-10.17	0.8	0.2		
Nil	Nil	Nil	Nil	0.26	-0.26	44.07	51.22	-7.15	0.0	0.0		

period for the past ten years. The variations are negative when the mean for the week is less than the corresponding 10. The number denoting cloud amount represents the part of the sky covered, the whole sky being denoted by 10. The number denoting the number of rainy days during the past 12 years. The number denoting the number of rainy days in which at least an hundredth of an inch fell.

SUPPLEMENT TO THE CALCUTTA GAZETTE, DECEMBER 31, 1884.

Report of Rainfall in Bengal for the week ending Friday (6 p.m.), the 26th December 1884.

District.	Station.	RAINFALL.							TOTAL.		Total rain-fall from 1st to 26th December 1884.	Average total rain-fall from 1st to 26th December.	Total rain-fall since 15th May 1884.	Average rainfall from 15th May to date.
		Saturday, 20th December.	Sunday, 21st December.	Monday, 22nd December.	Tuesday, 23rd December.	Wednesday, 24th December.	Thursday, 25th December.	Friday, 26th December.	Number of rainy days.	of Rainfall week.				
Pooree	Pooree	0.29	0.00	0.00	0.00	0.00	0.00	0.00	2	0.38	0.38	0.50	59.21	52.90
	Khurdah	0.41	0.10	0.00	0.00	0.00	0.00	0.00	2	0.51	0.51	0.34	50.77	58.67
	Banpur	0.30	0.10	0.00	0.00	0.00	0.00	0.00	2	0.40	0.40	0.31	37.41	51.94
	False Point	0.03	0.00	0.00	0.00	0.00	0.00	0.00	1	0.03	0.03	0.31	51.99	67.25
Jagatsingapore	Hookitola	0.60	0.22	0.00	0.00	0.00	0.00	0.00	2	0.82	0.82	0.25	55.22	46.91
	Banki	0.44	0.14	0.00	0.00	0.00	0.00	0.00	2	0.58	0.58	0.34	45.80	58.77
	Cuttack	0.33	0.07	0.00	0.00	0.00	0.00	0.00	2	0.40	0.40	0.26	51.08	56.77
	Kendrapara	0.01	0.13	0.00	0.00	0.00	0.00	0.00	2	0.14	0.14	0.20	40.79	53.68
Chandbali	Jajpore	0.30	0.00	0.00	0.00	0.00	0.00	0.00	1	0.30	0.30	0.76	46.33	63.65
	Bhuddruck	0.14	0.00	0.00	0.00	0.00	0.00	0.00	1	0.14	0.14	0.22	60.26	54.26
	Sorah	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.41	51.14	51.14
	Palasore	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.37	67.50	67.33
Jeliasore	Jeliasore	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.03	50.51	53.37
	Baripodah	0.04	0.00	0.00	0.00	0.00	0.00	0.00	1	0.04	0.04	0.06	54.85	53.37
	Contai	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.40	60.83	62.41
	Saugor Island	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.36	75.61	63.39
Diamond Harbour.	Tumlook	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.26	40.90	50.27
	Midnapore	0.01	0.00	0.00	0.00	0.00	0.00	0.00	1	0.01	0.01	0.13	46.16	47.25
	Ghatal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.24	37.88	52.30
	Alipore Jail	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.37	57.88	58.08
Barrackpore	Barrackpore	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.31	43.90	48.14
	Dum-Dum	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.31	60.48	50.79
	Baraset	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.31	46.33	48.88
	Buseerhat	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.24	51.32	53.14
Howrah	Howrah	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.33	46.63	51.25
	Mouesreka (Ooloberiah.)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.20	43.40	52.19
	Serampore	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.20	56.75	49.13
	Hooghly	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.30	39.25	47.41
Jehanabad	Jehanabad	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.17	36.42	54.72
	Culina	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.22	36.70	43.57
	Burdwan	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.20	35.32	47.88
	Cutwa	0.16	0.00	0.00	0.00	0.00	0.00	0.00	1	0.16	0.16	0.05	35.84	47.29
Raneegunge	Raneegunge	0.07	0.00	0.00	0.00	0.00	0.00	0.00	1	0.07	0.07	0.07	40.10	40.70
	Bankoora	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.16	54.86	50.12
	Indas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.27	35.48	49.26
	Bishenpore	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.22	34.53	48.41
Kotulpur	Kotulpur	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.30	46.25	56.00
	Malihara	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.30	46.25	56.00
	Onda	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.30	46.25	56.00
	Khatra	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.30	46.25	56.00
Bh. Soory	Bh. Soory	0.03	0.00	0.00	0.00	0.00	0.00	0.00	1	0.03	0.03	0.10	41.69	53.59
	Hetampore	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.15	52.13	52.13
	Bongong	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.32	35.90	51.54
	Ranaghat	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.18	38.93	40.63
Kishnaghat	Kishnaghat	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.06	29.72	46.30
	Chibsamunga	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.13	37.44	51.27
	Meherpore	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.11	34.75	47.03
	Kooshtea	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.11	41.31	54.14
Satkira	Satkira	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.42	62.47	53.57
	Bagirhat	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.33	65.14	60.21
	Khooins	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.37	64.54	54.65
	Narail	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.26	31.91	48.06
Jessore	Jessore	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.23	51.75	53.20
	Jhenidah	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.20	48.89	53.71
	Magorah	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.16	44.13	48.82
	Kandi	0.04	0.00	0.00	0.00	0.00	0.00	0.00	1	0.04	0.04	0.18	35.96	50.96
Rampore	Rampore	0.01	0.00	0.00	0.00	0.00	0.00	0.00	1	0.01	0.01	0.20	36.13	50.67
	Laal	0.13	0.00	0.00	0.00	0.00	0.00	0.00	1	0.13	0.13	0.14	36.77	51.44
	Laal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.21	34.95	49.40
	Laal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.12	39.94	49.83
Laal	Laal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.10	32.41	47.48
	Laal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.12	39.26	49.54
	Laal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.36	125.33	139.02
	Laal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.81	84.38	92.53
Laal	Laal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.66	62.06	86.39
	Laal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.46	82.40	86.39
	Laal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.39	54.78	64.10
	Laal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.59	84.20	88.53
Laal	Laal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.36	81.28	88.56
	Laal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.39	79.91	86.51
	Laal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.77	87.00	83.33
	Laal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.71	97.04	110.60
Laal	Laal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	1.33	93.24	111.28
	Laal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.17	46.31	56.01
	Laal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.18	47.47	58.19
	Laal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.13	57.87	54.06
Laal	Laal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.40	56.74	72.13
	Laal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.23	42.64	59.65
	Laal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.11	46.84	59.65
	Laal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.11	43.84	49.41
Laal	Laal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.36	77.04	86.01
	Laal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.34		



# MEMORANDA

BIRTHS and deaths were registered in the first class Municipalities in Bengal during the week ending 13th December 1884, at the rates, respectively, of 26.9 and 39.1 per 1,000 of population, against 26.5 and 37.6 per 1,000, respectively, in the preceding week ending 6th December, indicating an improvement in the registration of deaths.

2. The following Municipalities returned the highest proportions of births and deaths:—

Births.				Deaths.			
			Ratio per mille.				Ratio per mille.
Monghyr	...	...	91.3	Serampore	...	...	160.9
Comillah	...	...	50.1	Purneah	...	...	65.7
Durbhanga	...	...	37.7	Poori	...	...	59.8
Ranaghat	...	...	36.0	Suburbs of Calcutta	...	...	50.9
Gya	...	...	34.1	Dacca	...	...	49.9
Serampore	...	...	31.4	Jessore	...	...	49.0
				Bhagulpore	...	...	48.0
				Hughli	...	...	47.0
				Narainganj	...	...	45.6
				Kishnaghur	...	...	43.5
				Gya	...	...	41.1
				Chittagong	...	...	35.2
				Beaulah	...	...	34.1
				Monghyr	...	...	33.4
				Howrah	...	...	31.6
				Burdwan	...	...	30.5
				Durbhanga	...	...	29.9

3. The principal diseases specified in the table appended to this memoranda proved fatal at the rates exhibited below:—

				Ratio per mille during the weeks ending—		
				13th December 1884.	6th December 1884.	
Cholera	...	...	...	5.3	3.9	
Small-pox	...	...	...	3	3	
Fever	...	...	...	18.4	18.1	
Bowel-complaints	...	...	...	6.1	5.5	
Injury	...	...	...	1	4	
Other causes	...	...	...	8.9	9.4	

The only noticeable fact disclosed by the above figures is that the mortality from cholera had increased sensibly.

4. Of the above-named diseases, cholera, fever, bowel-complaints, and the diseases classed under the head of "Other causes" were noticeably fatal to life in the following Municipalities:—

Cholera.		Fever.		Bowel-complaints.		Other Causes.	
	Ratio per mille.		Ratio per mille.		Ratio per mille.		Ratio per mille.
Serampore	131.5	Purneah	51.9	Bhagulpore	17.2	Poori	32.1
Narainganj	33.2	Jessore	49.0	Durbhanga	12.6	Dacca	18.7
Chittagong	23.5	Santipore	29.8	Hughli	12.1	Gya	16.4
Suburbs of Calcutta	5.8	Beaulah	28.9	Suburbs of Calcutta	10.1	Suburbs of Calcutta	12.8
Hughli	5.4	Kishnaghur	28.4				
Howrah	4.4	Poori	25.6				
Dacca	3.9	Burdwan	24.4				
		Mozufferpore	24.3				
		Hughli	22.8				
		Suburbs of Calcutta	21.7				
		Serampore	21.6				
		Dacca	21.5				
		Gya	21.2				
		Bhagulpore	20.8				

5. Under the heads of Sex, Class and Age, the mortality of the week stood as follows:—

According to Sex.		According to Class.		According to Age.	
	Ratio per mille.		Ratio per mille.		Ratio per mille.
Males	40.8	Christians	39.1	Under 1 year	236.7
Females	37.2	Hindus	38.3	1 and under 5 years	51.7
Ratio of male deaths to every 100 female deaths	124	Mahomedans	40.6	5 " 10 "	24.6
		Budhists	48.4	10 " 15 "	17.2
		Other classes	72.8	15 " 20 "	32.9
				20 " 30 "	26.7
				30 " 40 "	28.5
				40 " 50 "	32.8
				50 " 60 "	53.5
				60 years and upwards	77.5

R. LIDDERDALE, M.D., Deputy Surgeon-General,  
Sanitary Commissioner for Bengal.

The 29th December 1884.

Statement showing the results of the Registration of Births and Deaths in the First Class Municipalities in Bengal during the week ending 13th August, 1901.

DISTRICTS.	NAMES OF MUNICIPAL PALICIES.
Burdwan ... ..	...
Midnapur ... ..	...
Hughli and Chinsurah ... ..	...
Serampore " "	...
Ulterpara " "	...
Howrah ... ..	...
Suburbs of Calcutta ... ..	...
Kishinagar ... ..	...
Ranighat ... ..	...
Sanipore ... ..	...
Jessore ... ..	...
Rampore Beaulah ... ..	...
Barjiling * ... ..	...
Dacca ... ..	...
Narynarunge ... ..	...
Chittagong ... ..	...
Comillah ... ..	...
Palna City ... ..	...
Gya ... ..	...
Araha ... ..	...
Moulferrpur- ... ..	...
Durbanga ... ..	...
Chupra ... ..	...
Bhagulporo ... ..	...
Moughyr ... ..	...
Purneah ... ..	...



DISTRICTS.	NAMES OF MUNICIPAL- FALITIES.	DEATHS AMONG—						RATIO PER 1,000 OF POPULA- TION PER ANNUM.		DEATHS.										RAIL- ROADS OF POPULATION PER ANNUM.												
		CLASS.						Other classes.	Under 1 year.	1 and under 5 years.	5 and under 10 years.	10 and under 15 years.	15 and under 20 years.	20 and under 30 years.	30 and under 40 years.	40 and under 50 years.	50 and under 60 years.	60 years and upwards.	Under 1 year.	1 and under 5 years.	5 and under 10 years.	10 and under 15 years.	15 and under 20 years.	20 and under 30 years.	30 and under 40 years.	40 and under 50 years.	50 and under 60 years.	60 years and upwards.				
		Christians.	Hindus.	Mahomedans.	Buddhists.	Other classes.																										
Burdwan	Burdwan	8	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	
Midnapur	Midnapur	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	
Hughli	Hughli and Chinsurah	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	
Serampore	Serampore	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	
Howrah	Howrah	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	
24-Pargunnahs	Suburbs of Calcutta	156	156	156	156	156	156	156	156	156	156	156	156	156	156	156	156	156	156	156	156	156	156	156	156	156	156	156	156	156	156	
Nudda	Kishinagar	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	
Jessore	Ranghat	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Rajshahye	Santipore	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	
Darjiling	Jessore	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	
Dacca	Rampore Beantah	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	
Chittagong	Darjiling	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	
Tipperah	Dacca	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
Patna	Navalungas	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	
Gya	Chittagong	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	
Shahabad	Comillah	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	
Mozufferpore	Patna City	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	
Durbandha	Gya	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	
Saran	Arrah	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	
Bhagalpore	Mozufferpore	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	
Monghyr	Durbandha	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	
Purneah	Cauprah	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	
Poori	Bhagalpore	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	
Total	Monghyr	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	
	Purneah	674	674	674	674	674	674	674	674	674	674	674	674	674	674	674	674	674	674	674	674	674	674	674	674	674	674	674	674	674	674	674
	Poori	593	593	593	593	593	593	593	593	593	593	593	593	593	593	593	593	593	593	593	593	593	593	593	593	593	593	593	593	593	593	593
	Total	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8

OFFICE OF SANITARY COMMISSIONER FOR BENGAL,

The 29th Dec 1884.

R. LIDDERDALE, M.D., Deputy Surgeon-General,  
Sanitary Commissioner for Bengal.

## Weekly Return of Traffic Receipts on Indian Railways.

## EASTERN BENGAL STATE RAILWAY.

Approximate Return of Traffic for week ended 13th December 1884, on 359 miles open, including Calcutta and South-Eastern Bengal Central Railway mileage.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated), including steam-boat.	Total earnings.	TRAFFIC TRAINS.	
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.
		Rs. A. P.	Mds. s.	Rs. A. P.	Rs. A. P.	Rs. A. P.		
A.—Total traffic for the week ...	97,391	36,433 0 0	3,30,909 0	58,824 0 0	11,013 0 0	1,06,269 0 0	15,240	9,629
Or per mile of railway ...	271	101 0 0	922 0	164 0 0	.....	265 0 0	.....	.....
For previous 23 weeks of half-year ...	1,940,028	7,83,234 0 0	76,53,778 0	17,72,374 0 0	1,06,526 0 0	27,58,134 0 0	307,038	253,475
Total for 24 weeks ...	2,040,419	8,19,666 0 0	79,84,087 0	18,37,198 0 0	2,07,539 0 0	28,64,463 0 0	322,254	263,104
COMPARISON.								
B.—Total for corresponding week of previous year ...	85,362	39,227 0 0	2,04,086 0	35,640 0 0	6,843 0 0	81,710 0 0	10,377	6,970
Per mile of railway corresponding period of previous year ...	301	138 0 0	719 0	126 0 0	.....	264 0 0	.....	.....
Total to corresponding date of previous year ...	1,839,060	8,56,907 0 0	67,86,843 0	13,89,710 0 0	2,30,826 0 0	24,86,443 0 0	235,881	193,221

A—Includes receipts of Calcutta and South-Eastern Railway, and 50 per cent. of receipts of Bengal Central Railway, viz., Rs. 5,058 and Rs. 4,928.

B—Includes share of Bengal Central Railway receipts due to Eastern Bengal State Railway for working, viz. Rs. 1,269, and Calcutta and South-Eastern receipts Rs. 4,928.

## FINANCIAL YEAR.

Approximate Statement of gross receipts of the Eastern Bengal State Railway.

RECEIPTS FOR WEEK ENDING 15TH DECEMBER 1883.			RECEIPTS FOR WEEK ENDING 13TH DECEMBER 1884.			TOTAL RECEIPTS FROM 1ST APRIL 1883 TO 15TH DECEMBER 1883.			TOTAL RECEIPTS FROM 1ST APRIL 1884 TO 13TH DECEMBER 1884.			Total increase in 1884.
Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked.	
	Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.	Rs.
284	81,710	288	359*	1,06,269	296	244	37,13,029	15,217	335	39,01,839	11,544	1,88,810

\*Increase in mileage.

Bengal Central Railway ... Miles. 74

## BENGAL CENTRAL RAILWAY.

Approximate Return of Traffic for week ended 13th December 1884 on 126 Miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAINS.	
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.
		Rs. A. P.	Mds. s.	Rs. A. P.	Rs. A. P.	Rs. A. P.		
Total traffic for the week ...	15,816	7,844 0 0	17,881 0	1,470 0 0	26 0 0	9,340 0 0	3,551	.....
Or per mile of railway ...	149	62 0 0	142 0	12 0 0	.....	74 0 0	.....	.....
For previous 23 weeks of half-year ...	407,458	1,63,282 0 0	2,53,714 0	23,441 0 0	1,069 0 0	1,87,792 0 0	75,234	.....
Total for 24 weeks ...	426,268	1,71,126 0 0	2,71,595 0	24,911 0 0	1,095 0 0	1,97,132 0 0	78,785	.....
COMPARISON.								
Total for corresponding week of previous year ...	13,004	2,232 0 0	8,253 0	288 0 0	19 0 0	2,559 0 0	1,556	.....
Per mile of railway corresponding period of previous year ...	250	43 0 0	159 0	6 0 0	.....	49 0 0	.....	.....
Total to corresponding date of previous year ...	240,098	42,467 0 0	3,19,871 0	8,544 0 0	578 0 0	51,580 0 0	22,382	.....

## FINANCIAL YEAR.

Approximate Statement of Gross Receipts of the Bengal Central Railway.

RECEIPTS FOR WEEK ENDING 15TH DECEMBER 1883.			RECEIPTS FOR WEEK ENDING 13TH DECEMBER 1884.			TOTAL RECEIPTS FROM 1ST APRIL 1883 TO 15TH DECEMBER 1883.			TOTAL RECEIPTS FROM 1ST APRIL 1884 TO 13TH DECEMBER 1884.			Total increase in 1884.
Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked.	
	Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.	Rs.
52	2,539	49	126	9,340	74	35	80,329	2,295	125	3,33,690	2,670	2,53,361



## BENGAL PROVINCIAL RAILWAYS.

## Weekly Statement of Traffic Receipts.

Last return received.	Name of Railway.	Length open.	RECEIPTS FOR WEEK ENDING		TOTAL RECEIPTS FROM 1st JANUARY		Total increase in 1884.	Total decrease in 1884.	Percentage of increase or decrease.
			3rd November 1883.	1st November 1884.	To 3rd November 1884.	To 1st November 1884.			
		Miles.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	
13th November 1884.	North Bengal.	213	32,347 0 0	43,333 0 0	48,50,000 0 0	17,04,710 0 0	2,75,214 0 0	1,55,000 0 0	—
1st do.	Barrow.	226	11,743 0 0	27,676 0 0	2,35,400 0 0	3,83,740 0 0	2,75,214 0 0	4,000 0 0	—
13th do.	Naldan.	271	1,200 0 0	1,200 0 0	79,704 0 00	65,011 0 0	—	—	—
	Total.	510	45,290 0 0	72,209 0 0	50,65,104 0 0	20,53,461 0 0	1,14,512 0 0	—	—

## DARJEELING-HIMALAYAN RAILWAY COMPANY, LIMITED.

	Rs. A. P.
Earnings for week ending 13th December 1884	2,578 0 0
Corresponding week last year	6,970 13 8
Increase	2,007 2 9
Receipts from 1st July to 13th December 1884	2,04,100 7 1
from 1st July to 13th December 1883	2,00,465 10 11
Increase	3,634 12 8
Miles open week ending 13th December 1884	50
Corresponding week last year	50
Receipts per mile open week ending 13th December 1884	Rs. A. P. 101 8 1
Corresponding week last year	129 6 8
Increase	63 2 4

DARJEELING, the 20th December 1884.

W. STEVENSON, Secretary.

## DARJEELING-HIMALAYAN RAILWAY COMPANY, LIMITED.

	Rs. A. P.
Earnings for week ending 20th December 1884	8,461 0 0
Corresponding week last year	8,514 10 11
Decrease	53 10 11
Receipts from 1st July to 20th December 1884	2,12,621 7 1
from 1st July to 20th December 1883	2,09,977 3 9
Increase	2,644 1 4
Miles open week ending 20th December 1884	50
Corresponding week last year	50
Receipts per mile open week ending 20th December 1884	Rs. A. P. 169 5 8
Corresponding week last year	170 3 9
Decrease	1 0 3

DARJEELING, the 23rd December 1884.

W. STEVENSON, Secretary.